SONY

REMOTE CONTROL UNIT

RM-VJ1
RM-VJ1P

SERVICE MANUAL

1st Edition

⚠警告

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お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

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SECTION 1
OPERATING INSTRUCTIONS

This section is extracted from operation manual.

SONY

3-865-908-01**(1)**

Remote Control Unit

Operating Instructions

RM-VJ1/VJ1P

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For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For the customers in Europe

This product with the CE marking complies with the EMC Directive(89/336/EEC) issued by the Commission of the European Community.
Compliance with this directive implies conformity to the following European standards:

- EN55103-1: Electromagnetic Interference (Emission)
- EN55103-2: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environment(s):
E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors) and E4 (controlled EMC environment, ex. TV studio)

Overview

English

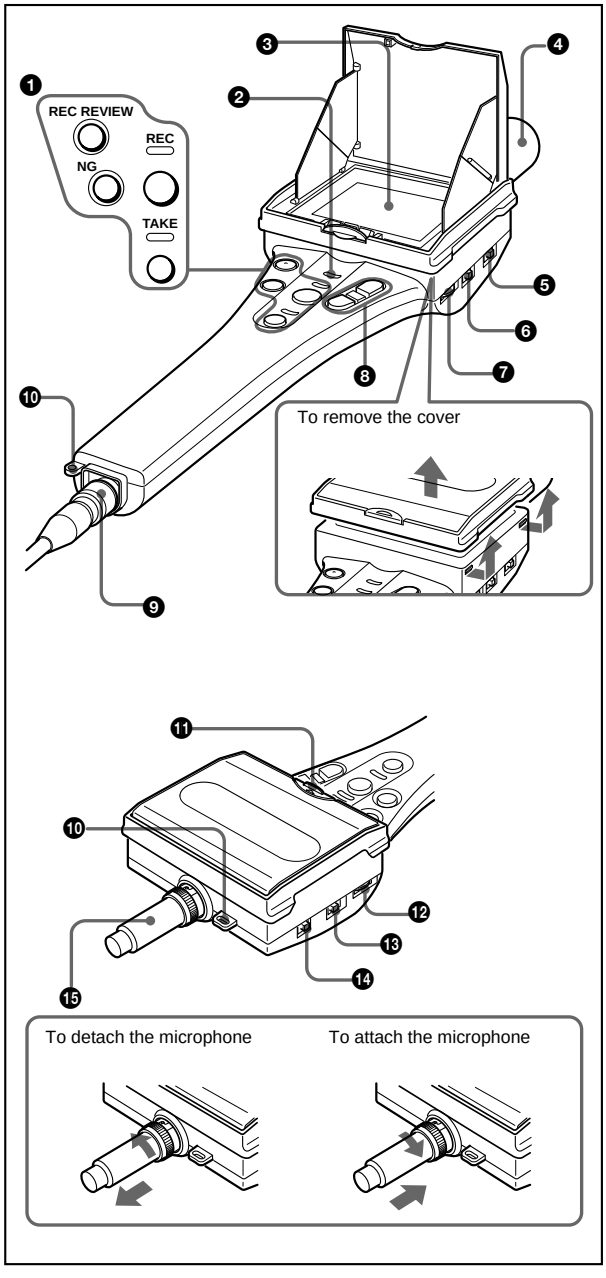
The RM-VJ1/VJ1P, a remote control unit designed for use with the Sony DSR-300/300P Digital Camcorder, allows a person to single-handedly report an event and operate the camcorder at the same time. It comes with a built-in 2.5-inch color LCD monitor and a microphone.

Precautions

- Always use the supplied connecting cable. Other cables may produce noise in the microphone.
- The RM-VJ1/VJ1P is not designed for immersion in water. Do not use this unit with wet hands or in the rain.
- A highly sophisticated production method ensures flawless operation of more than 99.99% of the LCD panel segments. A small percentage of the segments, however, may fail during extended use, but with little overall effect to viewing quality. Should a color segment fail, it either remains off or stays on.
- The type of lens attached to the RM-VJ1/VJ1P determines the zoom speed when you press down T or W of the ZOOM/FOCUS button.
- Make sure to set the ZOOM SELECT 1/2 switch to the position that corresponds with the brand of the attached lens. If this switch is not set correctly, the ZOOM/FOCUS (T/W) button may operate in reverse.
  1: Setting for a FUJINON lens
  2: Setting for a Canon lens
  The switch is factory set to “1”.
- The audio level may be adjusted with the AUDIO LEVEL control on the RM-VJ1/VJ1P when the AUDIO SELECT switch on the camcorder is set to AUTO. It is normal practice, however, to adjust the level on the camcorder in advance, and then to use the AUDIO LEVEL control on the RM-VJ1/VJ1P only for fine adjustments.
- The microphone unit can be replaced with a Sony Lavalier Microphone, such as the ECM-44BC, ECM-55BC or ECM-77BC series.
- To prevent damaging the microphone unit, disconnect the connecting cable before replacing the microphone.

Notes

- If images are displayed on the LCD monitor but no text, or if the camcorder operation buttons on the RM-VJ1/VJ1P do not function, make sure that the baud rate is set to 38400 in the camcorder’s setting menu. If it is set to 9600, communications between the camcorder and the RM-VJ1/VJ1P will not take place. When you change the baud rate from 9600 to 38400, you must restart the camcorder.
- When you connect the RM-VJ1/VJ1P to a DSR-300/300P camcorder, the ROM inside the camcorder must be Ver.1.03 ROM or later. To verify the ROM version, consult your Sony dealer. A Ver.1.03 ROM or a later version is installed in a DSR-300/300P with the following serial numbers:
  DSR-300: Serial No.10306 and higher **DSR-300P:** Serial No.40571 and higher



Locations and Functions of Parts and Controls

English

❶ Camcorder operation buttons
Use these buttons to control the camcorder connected to the RM-VJ1/VJ1P.
For details on the function of each button, refer to the operation manual for the camcorder.

❷ POWER lamp
Lights up when power is supplied from the camcorder.

❸ 2.5-inch LCD monitor

❹ Wind screen for the microphone

❺ POWER switch
ON: All remote operations are enabled (the monitor is on).
SAVE: The monitor turns off to save power.

❻ ZOOM/FOCUS switch
Selects the zoom or focus function. The focus function can be used only with focus-enabled lenses (available in the near future).

❼ BRIGHT control
Adjusts the brightness of the monitor.

❽ ZOOM/FOCUS (T/W) button (only the zoom function is currently available)
Hold down this button to increase the zoom speed (except in REC mode).
T: telephoto **W:** wide-angle

❾ Connecting cable
Connect to the REMOTE 2 connector on the camcorder.

❿ Hand strap post

⓫ Lock lever for the monitor cover
Pull down to open the cover.

⓬ AUDIO LEVEL control
Adjusts the audio level of the microphone.

⓭ LOW CUT switch
The low cut filter is activated when this switch is set to ON.

⓮ ZOOM SELECT 1/2 switch
1: For a FUJINON lens **2:** For a Canon lens

⓯ Omnidirectional microphone (interchangeable)
To prevent damaging the microphone unit, disconnect the connecting cable before replacing the microphone.

Specifications

Signal input	Composite video (NTSC/PAL, 4:3/16:9)
LCD panel	2.5-inch, 180,000 dot TFT LCD panel
Horizontal resolution	more than 200 TV lines (center section)
Microphone type	Omnidirectional
Power consumption	3 W at operation 1.3 W in power save mode (the monitor is off)
Operating temperature	0 ˚C to +40 ˚C (+32 ˚F to +104 ˚F)
Dimensions (W/H/D)	77.4 × 261 × 32.5 mm ($3\,1/8 \times 10\,3/8 \times 1\,5/16$ inches) (not including monitor cover)
Mass	240 g (8.5 oz)
Supplied accessories	Connecting cable CCA-7-7A (7 m (23 feet)) (1) Hand strap (1)

Design and specifications are subject to change without notice.

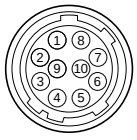
SECTION 2
SERVICE INFORMATION

2-1. NOTE ON SERVICE

The unit is the remote control unit to be attached to a camcorder. If repairing or checking the RM-VJ1/VJ1P, the camcorder is required.
When the RM-VJ1/VJ1P are used together with the DSR-300/300P, be sure to check that the ROM version for IC703/AT-117 board of the DSR-300/300P is Ver.1.03 or higher. If required, replace the ROM.

2-2. CONNECTOR INPUT/OUTPUT SIGNALS

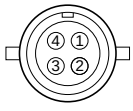
REMOTE (10P, MALE)



(External view)

No.	Signal	Specifications
1	VJ CONNECT	5.0 V
2	VBS (X) IN	1.0 Vp-p, SYNC NEGATIVE
3	VBS (GND) IN	
4	AUDIO (Y) OUT	–30 dBu BALANCED
5	AUDIO (X) OUT	
6	RS232C OUT	
7	RS232C IN	
8	REC TALLY IND IN	
9	POWER +12 V DC GND, AUDIO (GND)	GND for +12 Vdc, AUDIO GND
10	POWER +12 V DC IN	10.6 V to 17.0 Vdc

MIC (4P, FEMALE)



(External view)

No.	Signal	Specifications
1	POWER	+3.6 V
2	MIC (GND) IN	–40 dBu CHASSISS
3	MIC (X) IN	
4	GND	

2-3. CONNECTION CONNECTOR/CABLE

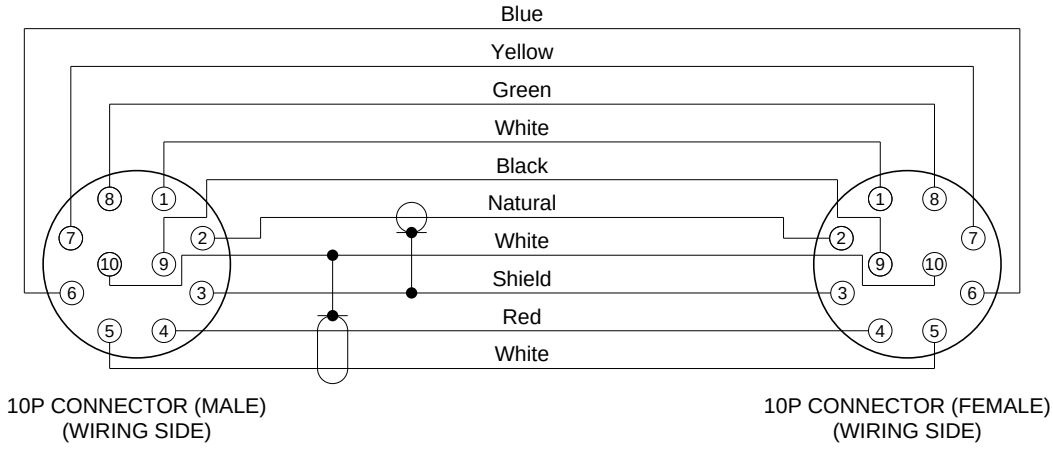
Connection between the REMOTE connector and cable during installation or service, should be made with the connectors/complete cable assembly specified in the following list or equivalent parts.

Connector Name	Connection Connector	Connection Cable
REMOTE (10P MALE)	1-566-437-11 CONNECTOR, 10P FEMALE HIROSE HR 10A-10PA-10S equivalent	CCA-7-7A cable(supplied with this unit,7 m)*

*: The use of CCA-7-5 cable is limited to service. The noise may be caused in the microphone audio.

Wiring Diagram for Cables

CCA-7-7A cable (Connecting diagram)

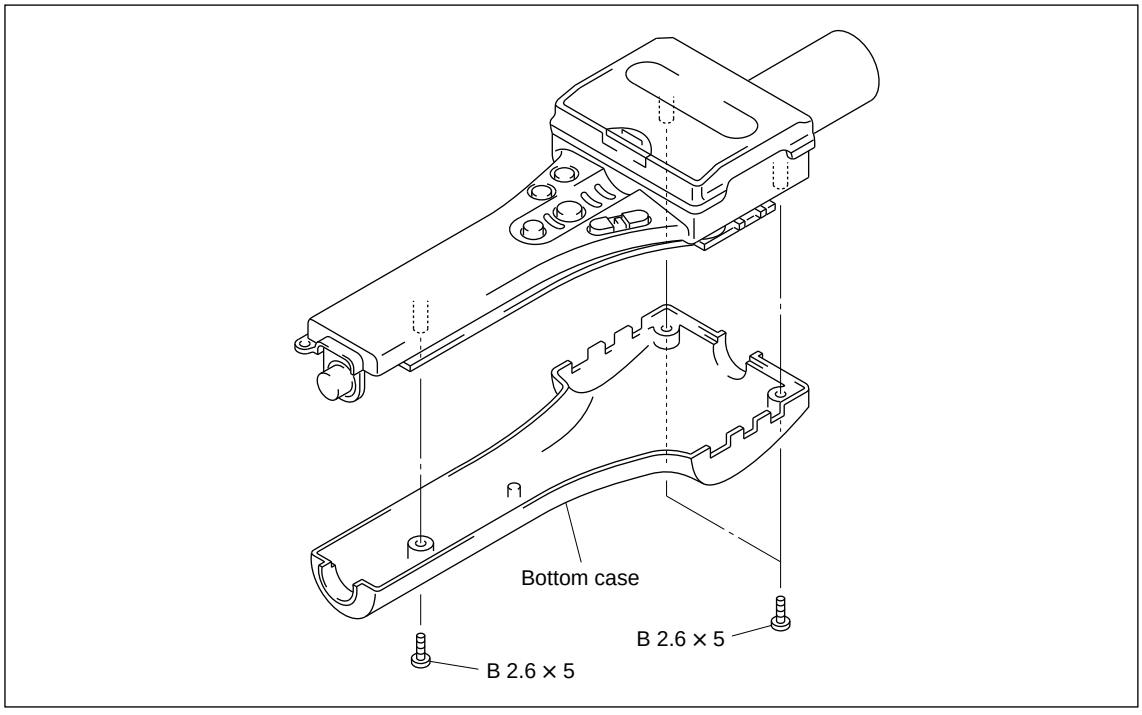


10P CONNECTOR (MALE)
(WIRING SIDE)

10P CONNECTOR (FEMALE)
(WIRING SIDE)

2-4. REMOVING THE BOTTOM CASE

1. Remove the three screws securing the bottom case.



2-5. FUNCTIONS OF SWITCHES ON BOARD

The zoom speed mode and adjustment mode can be selected using rotary switch S11 on the DU-35 board.

Note

- Do not set to the position of switches S11-4 to S11-8 and S11-A to S11-C.
- Factory setting: S11-0

Zoom speed mode selection switches (S11-0 to S11-3)

These switches select the operating speed of this unit's ZOOM/FOCUS button.

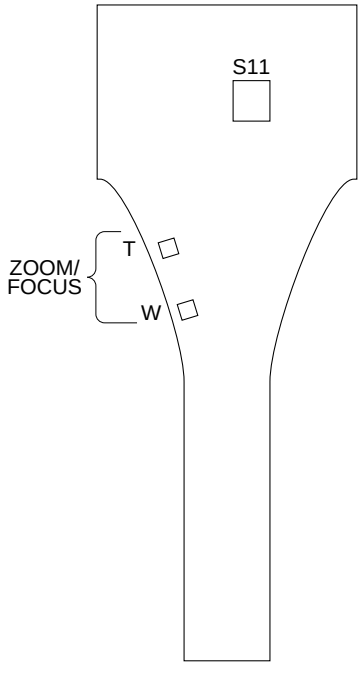
Ref. No.	Description
S11-0	Standard speed (Variable speed)
S11-1	The zoom speed in the telephoto and wide-angle directions differs in the DSR-300/300P This mode is used to make the zoom speed uniform
S11-2	Low speed (Constant speed)
S11-3	High speed (Constant speed)

Adjustment mode selection switches (S11-9, and S11-D to S11-F)

Ref. No.	Item	Description
S11-9	H-POSITION adjustment	Horizontal position adjustment (For more details, refer to section 3-1.)
S11-D	R-BRIGHT adjustment	R-bright level adjustment (For more details, refer to section 3-1)
S11-E	B-BRIGHT adjustment	R-bright level adjustment (For more details, refer to section 3-1)
S11-F	STORE/RECALL selection STORE/RECALL selection	ZOOM/FOCUS-T button : Stores the set value ZOOM/FOCUS-W button : Calls the reference value

Notes

- Do not push the ZOOM/FOCUS-T or ZOOM/FOCUS-W button while the above switch is set to any position of S11-0 to S11-8, and S11-A to S11-C.
- After adjustment is completed, be sure to return to any position of switches S11-0 to S11-3.



DU-35 BOARD B-SIDE

2-6. CIRCUIT DESCRIPTION

DU-35 board

Audio circuit

IC16:

Receives the microphone audio signal input from pins 2 and 3 of CN3 by differential input and then amplifies it by approx. 23 dB.

IC17:

Constitutes an active low-cut filter that cuts the low level of the microphone audio signal amplified by IC16. After switching between the audio signal not passed through the low-cut filter and the signal passed through the low-cut filter by switch S8, the selected signal is adjusted in level through buffers Q48 and Q49 by RV20, and is then sent to photo-MOS relay IC18.

IC18:

The 10-pin connector interface mounted in the RM-VJ1/VJ1P is an extended interface that is used in RM-M7G and RCP-TX7. Microcomputer IC14 controls IC18 only when the unit is connected to an camcorder corresponding to the RM-VJ1/VJ1P such as DSR-300/300P so as to ensure upper compatibility. At that time, an audio signal is output to pins 6 and 7 of connector CN6.

DC/DC converter

IC1:

Generates a reference voltage and uses it as the reference voltage of a DC/DC converter circuit.

IC2:

IC2 is a controller, based on a PWM control system, which controls a DC/DC converter output. IC2 has two control lines. The first line controls a power of +5 V. The second line controls powers of +15.5 V and +12 V for LCD and a power of −5 V for an audio circuit.

Control using first line:

The control output signal at pin 7 of IC2 is received by Q1 and Q2. A flywheel circuit is constituted by L2 and C12. After that, the control output signal is rectified by an inductor (L) and capacitor (C), and Powers of +5 V (for an audio circuit and microcomputer), +5 V (for LCD), +5 V (for LED), and +5 V (for a backlight) are output.

Control using second line:

The control output signal at pin 10 of IC27 is passed through buffers Q3 and Q4. A flywheel circuit is constituted by Q5, L5, and C21. After that, powers of +15.5 V (for LCD), +12 V (for LCD), and −5 V (for an audio circuit) are output via a DC/DC converter transformer.

POWER SAVE switch S9

This switch turns off the backlight on the save side.

Microcomputer (IC14):

The operating clock of this unit's microcomputer is 10 MHz. IC14 receives an external clock of 20 MHz and divides the frequency of the external clock into 10 MHz.

IC14 performs the processing below according to the program written in ROM.

- Transmits serial data to the LCD controller and driver LSI.
- Reads data from EEPROM.

The RM-VJ1/VJ1P judges whether the unit is connected to a camcorder corresponding to the RM-VJ1/VJ1P or the others using a VJ-CONNECT signal at the REMOTE connector. Moreover, the camcorder also judges whether the camcorder is connected to RM-VJ1/VJ1P or remote control units other than RM-VJ1/VJ1P using this signal. The RM-VJ1/VJ1P and the camcorder are mutually recognized in the procedure below.

1. The VJ-CONNECT line during power-on reset is set to high impedance (grounded by R171 (220 kΩ)) for RM-VJ1/VJ1P and is pulled up to 5 V in 100 kΩ for the camcorder.
2. It is confirmed using the voltage of a VJ-CONNECT line that the RM-VJ1/VJ1P is connected to the corresponding camcorder. The RM-VJ1/VJ1P is grounded by an analog switch (IC11) and R170 (1 kΩ).
3. It is recognized for the required circuit selection that the camcorder is connected to the RM-VJ1/VJ1P when a VJ-CONNECT line is grounded on the remote control side.
   The communication with a camcorder conforms to the RS-232C standard (38.4 kbps, 8 bits, one stop bit, and even parity). A receiver circuit (IC15) is used for reception. IC15 also has an internal transmission driver. The RM-VJ1/VJ1P uses a transistor (Q41) for transmission buffer and performs the driving in a TTL level. The reason is that the REMOTE interface of a camcorder incompatible with the RM-VJ1/VJ1P is destroyed by the driving based on the RS-232C standard.
   The communication with a camcorder is constituted by a command and its corresponding answerback. This unit communicates with the camcorder once a second even if the operation requiring communication is not carried out. For camcorders incompatible with the RM-VJ1/VJ1P, however, this communication is not performed except approximately 10 seconds after power-on reset.

DR-395/395P board

LCD driver IC6 (CXA2543R):

IC6 is liquid-crystal display panel DCX501 driving LSI that integrates the R/G/B decoder, the timing generator for the driving LCD monitor and the R/G/B LCD monitor driver.
The composite video signal is input to IC16. It is used to generate the timing pulse for driving LCD monitor. On the other hand, it is decoded to R/G/B signals. IC16 also drives color liquid-crystal display DCX501 directly. Each setting is almost carried out using LCD data from the microcomputer. IC19 on the DU-35 board stores the set data.

In addition, four controls for LCD monitor adjustment are available.
RV1: Controls the detail amount of a picture output to the LCD monitor.
RV2: Sets the GND black level of R/G/B driving signal waveforms sent to the LCD monitor.
RV3: Sets the power black level of R/G/B driving signal waveforms sent to the LCD monitor.
RV4: Performs the AFC center adjustment.
X1 : Subcarrier generator for decoding a composite video signal. Rectifies the G driving signal waveform of a COM voltage generator and produces the COM voltage sent to the LCD monitor.

Backlight ON circuit

Q13 and Q14:

In the SAVE mode, Q13 and Q14 stop the controller of a backlight ON circuit and turn off the backlight.

IC4 (TL5001):

IC4 is a PWM controller that stabilizes the voltage sent to a high-frequency lighting circuit irrespective of the UNREG voltage supplied from the camcorder.

Q12 and T2:

Q12 and T2 are a high-voltage generator circuit for backlight ON.

Light-emitting diode (LED) D11 for dark lighting:

D11 is a diode that applies the light of LED to the fluorescent indicator tube constituting a backlight and forcibly turns on the backlight when a backlight is not turned on.

IC5 (TA75S393F):

When a backlight is not turned on, the voltage at pin 3 of connector CN1 is not output and the voltage sent to pin 3 of a comparator decreases. At that time, Q20 is turned on and the LED for dark lighting is turned on.

2-7. DISCONNECTING/CONNECTING THE FLEXIBLE CARD WIRE

The three flexible card wires are used as follows:
Take care not to break the flexible card wire. This shorten the wire life.

- Between DR-395 and DU-35 : Q'ty 1
- Between LCD monitor and DR-395 : Q'ty 1
- Between Backlight and DR-395 : Q'ty 1

Disconnecting

1. Turn off the power of the unit.

Type A (between the DR-395 board and the DU-35 board, and the LCD monitor and the DR-395 board)

2. Lift up the portion A in the direction of the arrow and disconnect the flexible card wire.

Type B (between the backlight and the DR-395 board)

2. Slide portion B in the direction of the arrow and disconnect the flexible card wire.

Connecting

Note

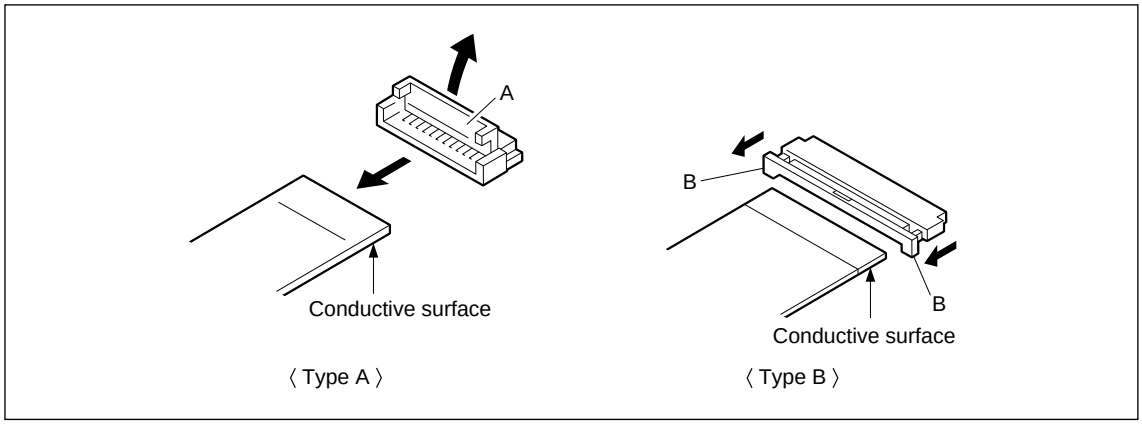
- Be careful not to insert the flexible card wires obliquely.
- Check that the conductive surface of the flexible card wire is not soiled with dust.

Type A

1. Lift up the portion A in the direction of the arrow. Insert the flexible card wire as far as it will go into connector with the conductive surface of the wire put down.
2. Push down the portion A to secure the flexible card wire.

Type B

1. Slide portion B in the direction of the arrow and insert the flexible card wire as far as it will go into connector with the conductive surface of the wire put down.
2. Slide portion B in the opposite direction of the arrow and lock each connector.

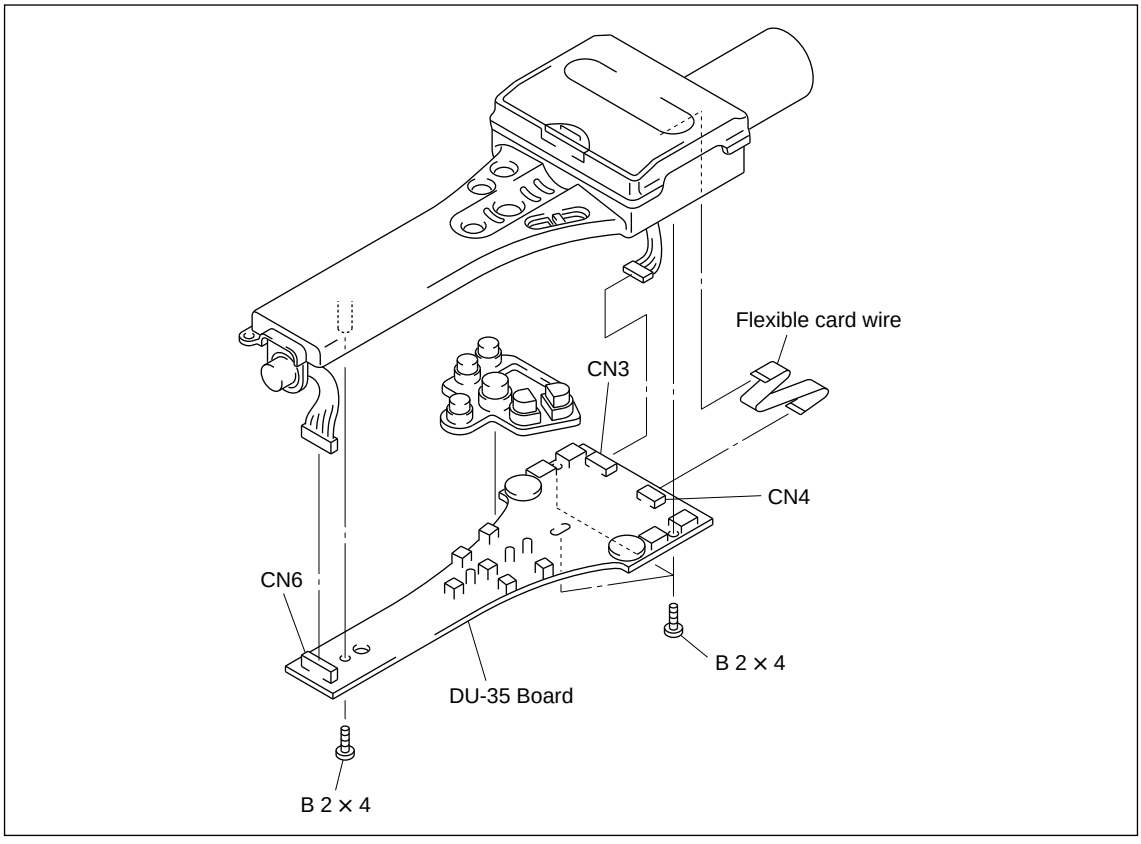


2-8. REPLACING THE DU-35 BOARD

1. Remove the three screws fixing the bottom case referring to section 2-4.
2. Remove the four screws fixing the DU-35 board.
3. Disconnect the flexible card wire (CN4) and two connectors (CN3 and CN6).

   Note

   For the connection and disconnection of the flexible card wire, refer to section 2-7.
4. Install a new DU-35 board in the reverse order of removal.



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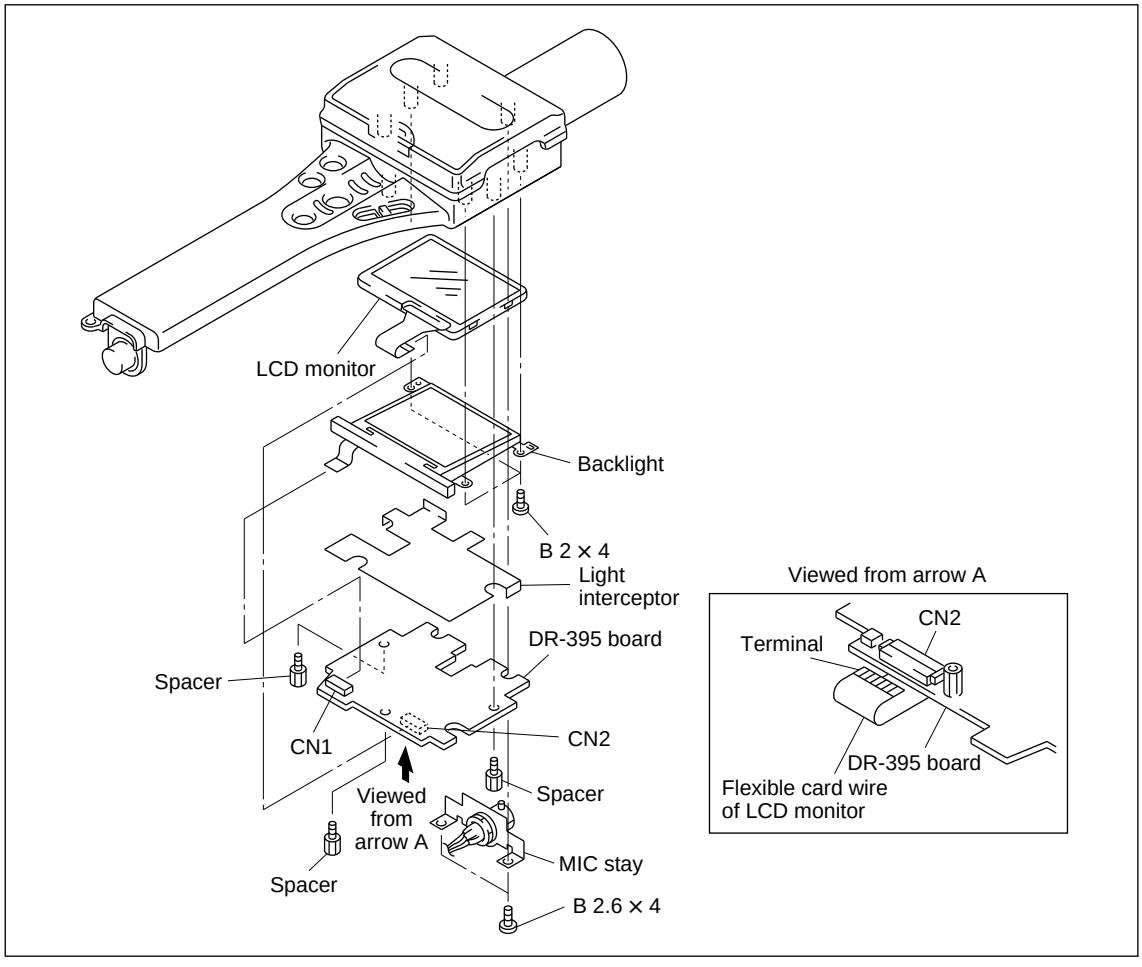
2-9. REPLACING THE DR-395/395P BOARD

1. Remove the DU-35 board referring to section 2-8.
2. Remove the two screws (B2.6 × 4) fixing the MIC stay.
3. Remove the three spacers fixing the DR-395/395P board and disconnect the flexible card wire (CN2).

Notes

- The flexible card wire extended from the LCD monitor is sensitive to static electricity. Treat it with care. Never touch its terminal.
- For the connection and disconnection of the flexible card wire, refer to section 2-7.

4. Remove the light interceptor.
5. Remove the three screws (B2 × 4) fixing the backlight and disconnect the flexible card wire (CN1).
6. Install a new DR-395/395P board in the reverse order of removal.



2-10. REPLACING THE LCD MONITOR AND BACKLIGHT

Note

After the LCD monitor and backlight have been replaced, perform the R/B bright adjustment (refer to section 3-1) and horizontal position adjustment (refer to section 3-2) as required.

1. Remove the DU-35 board referring to section 2-8.
2. Remove the DR-395 board and backlight referring to section 2-9.
3. Remove the LCD monitor.
4. Install a new LCD monitor and backlight in the reverse order of removal.

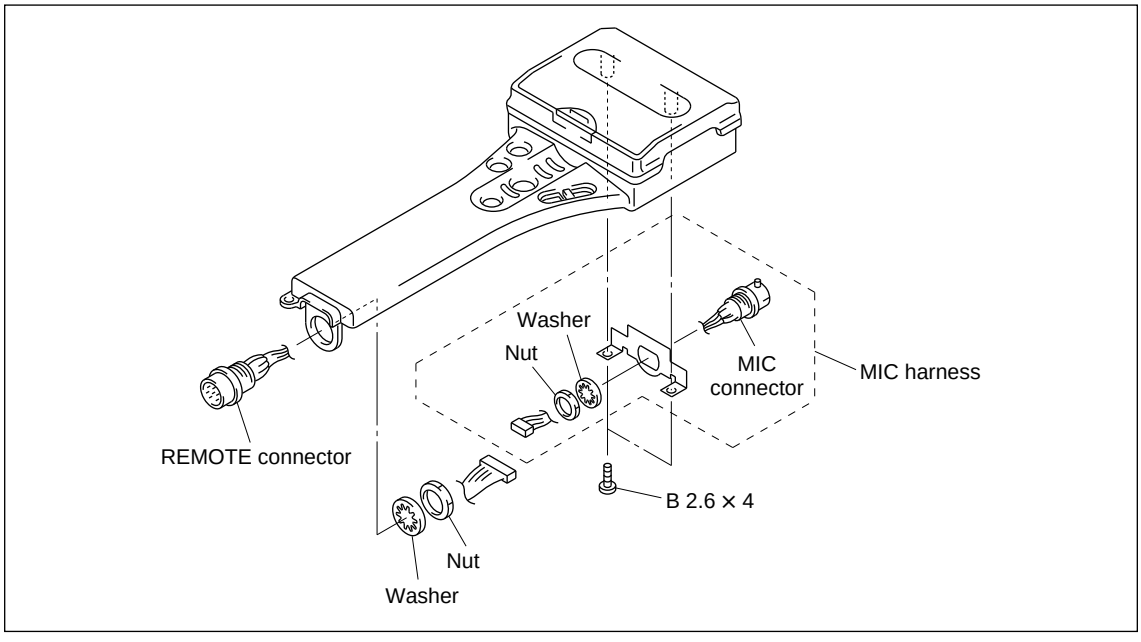
2-11. CONNECTOR REPLACEMENT

2-11-1. Replacing the MIC Connector

1. Remove the DU-35 board referring to section 2-8.
2. Remove the two screws fixing the MIC stay.
3. Remove the nut and washer fixing the MIC connector and disconnect the MIC connector. Unsolder the MIC connector.
4. Connect a new connector in the reverse order of disconnection.
   Note at installation
   Fix the connector using a nut and then apply locking compound to the nut.

2-11-2. Replacing the REMOTE Connector

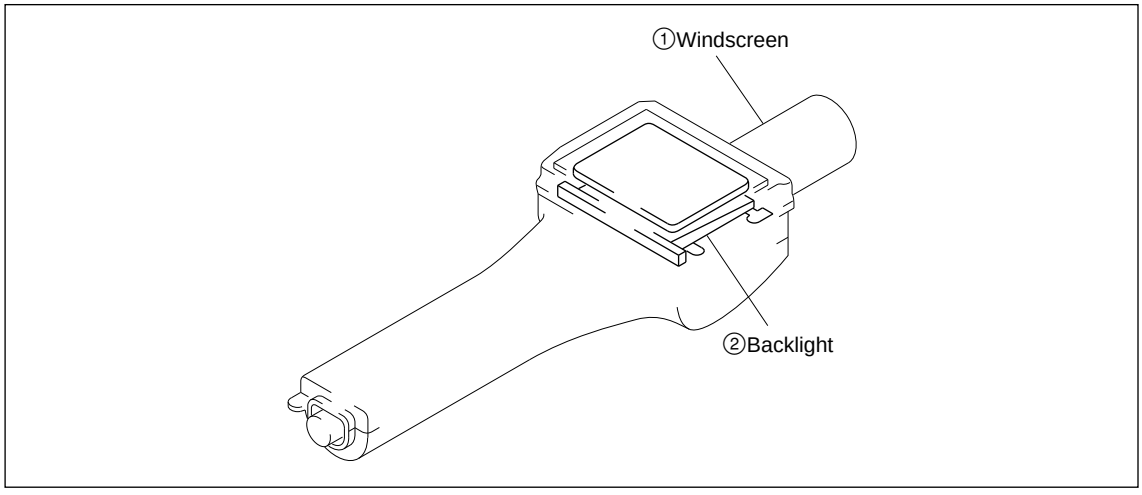
1. Remove the DU-35 board referring to section 2-8.
2. Remove the nut and washer fixing the REMOTE connector and disconnect the REMOTE connector. Unsolder the REMOTE connector.
3. Connect a new connector in the reverse order of disconnection.
   Note at installation
   Fix the connector using a nut and then apply locking compound to the nut.



2-12. RECOMMENDED REPLACEMENT PARTS

Parts listed below are recommended replacement parts.
Windscreen is subject to cracks with the lapse of time. Visually check it sometimes and replace it according to necessary. When display of the LCD monitor darken, the backlight is at the end of its safe useful and should be replaced.

Fig.No.	Description	P/N
①	Windscreen	X-3605-346-X
②	Backlight	1-517-868-1X



SECTION 3
ELECTRICAL ALIGNMENT

Required equipment
- Camcorder (such as the DSR-300/300P)
- Connection cable CCA-7-7A

Measurement equipment
- Oscilloscope

Fixtures
- Pattern box PTB-500
  Sony part No. : J-6029-140-B
- Grayscale chart (transparent chart)
  Sony part No. : J-6026-130-B

Preparations
- Connect this unit and camcorder using a connection cable (CCA-7-7A).

  Note

  The CCA-7-5 cable can be used. Therefore, the noise may be caused in the microphone audio.

- Turn on POWER switch of the camcorder.

3-1. R/B BRIGHT ADJUSTMENT

Adjust as described below if red or blue of a picture on the LCD monitor is too strong in brightness.

Note

Be sure to perform the “Setting after adjustment completion” before turning off the power.

Preparations
- Shoot the grayscale chart so that the chart frame is aligned with the underscanned monitor frame.
- Adjust the white balance of a camcorder by setting the WHT/BLK switch to WHT.
- Set the switch S11 on the DU-35 board to F and press the ZOOM/FOCUS-W button.

Adjustment procedures
1. Adjust the screen to the easy-to-view brightness using the BRIGHT knob.
2. Adjust R-BRIGHT and B-BRIGHT alternately to obtain natural white while monitoring the screen.
   R-BRIGHT adjustment
   (1) S11/DU-35 board → D
   (2) ZOOM/FOCUS button T : +
   W : −
   B-BRIGHT adjustment
   (1) S11/DU-35 board → E
   (2) ZOOM/FOCUS button T : +
   W : −

Setting after adjustment completion
1. Set the switch S11 on the DU-35 board to F and press the ZOOM/FOCUS-T button.
   (Setting values are stored.)
2. Set the switch S11 on the DU-35 board to its original position (any of 0 to 3).

3-2. HORIZONTAL POSITION ADJUSTMENT

Note

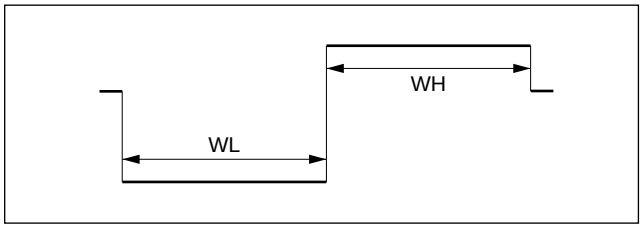
Be sure to perform the “Setting after adjustment completion” before being powered off.

Preparation

- Set the switch S11 on the DU-35 board to F and press the ZOOM/FOCUS-W button.

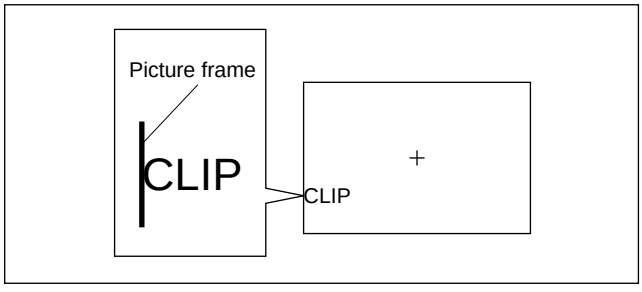
Adjustment procedures

1. Test point : TP4/DR-395/395P board
   Adjustment point : ⊘RV4/DR-395/395P board
   Specifications : WL = WH



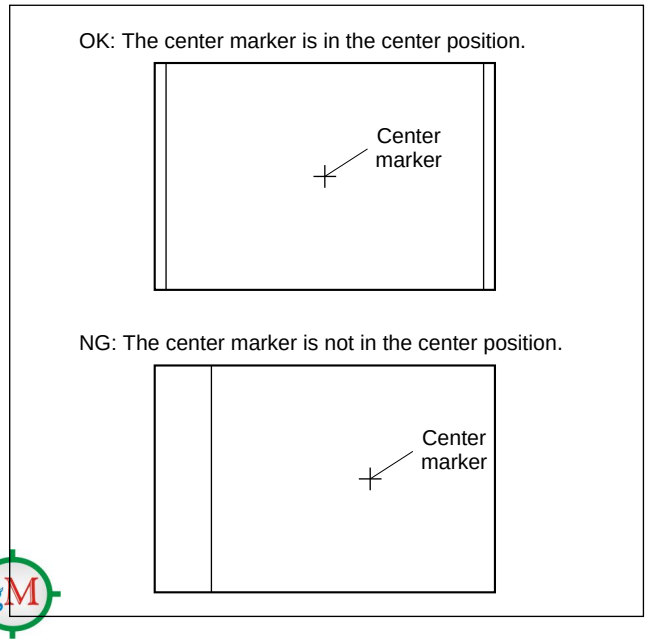
[RM-VJ1]

2. Set the switch S11 on the DU-35 board to 9 and adjust so that “CLIP” display appears in the picture frame.
   ZOOM/FOCUS button T : Right
   W : Left



[RM-VJ1P]

2. Set the switch S11 on the DU-35 board to 9 and adjust so that the position relation between the safety zone marker and picture frame is shown below when the safety zone marker is 90%.
   ZOOM/FOCUS button T : Left
   E : Right


OK: The center marker is in the center position.
Center marker
NG: The center marker is not in the center position.
Center marker

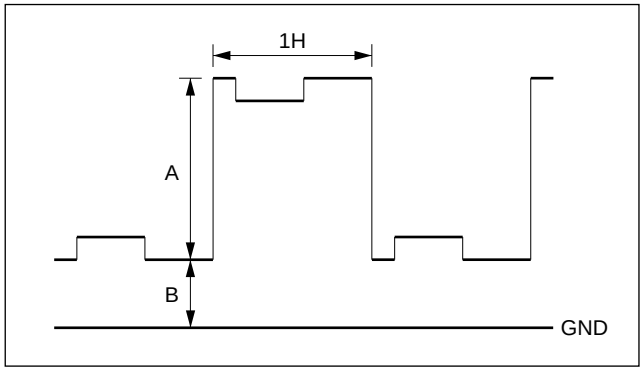
Setting after adjustment completion

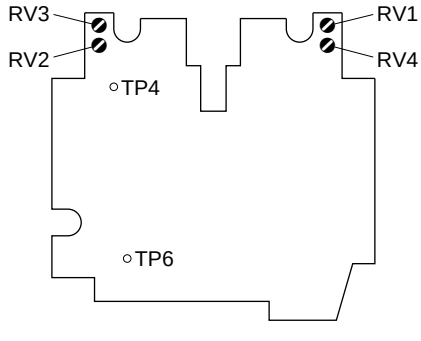
1. Set the switch S11 on the DU-35 board to F and press the ZOOM/FOCUS-T button.
   (Setting values are stored.)
2. Set the switch S11 on the DU-35 board to its original position (any of 0 to 3).

3-3. LCD SIGNAL LEVEL ADJUSTMENT

Adjustment procedures

1. Output a camera color-bar signal by setting the OUTPUT/DL/DCC + switch a camcorder to BARS.
2. Set the BRIGHT knob to the minimum position.
3. Test point : TP6/DR-395/395P board
   Adjustment point : ⊘RV2/DR-395/395P board
   Specifications : A = 8 ± 0.1 V
   Adjustment point : ⊘RV3/DR-395/395P board
   Specifications : B = 2 ± 0.1 Vdc





DR-395/395P BOARD B-SIDE

SECTION 4
SPARE PARTS

4-1. NOTES ON REPAIR PARTS

(1) Safety Related Components Warning
Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

(2) Standardization of Parts
Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to “accommodating the improved parts and/or engineering changes” or “standardization of genuine parts”.
This manual's exploded views and electrical spare parts list are indicating the part numbers of “the standardized genuine parts at present” .

(3) Stock of Parts
Parts marked with “o” SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with “o” will be processed, but allow for additional delivery time.

(4) Units for Capacitors, Inductors and Resistors
The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors : µF
Inductors : µH
Resistors : Ω

4−1. 補修部品注意事項

(1) 安全重要部品
⚠警告
⚠印のついた部品は安全性を維持するために重要な部品です。したがって，交換する時は必ず指定の部品を使ってください。

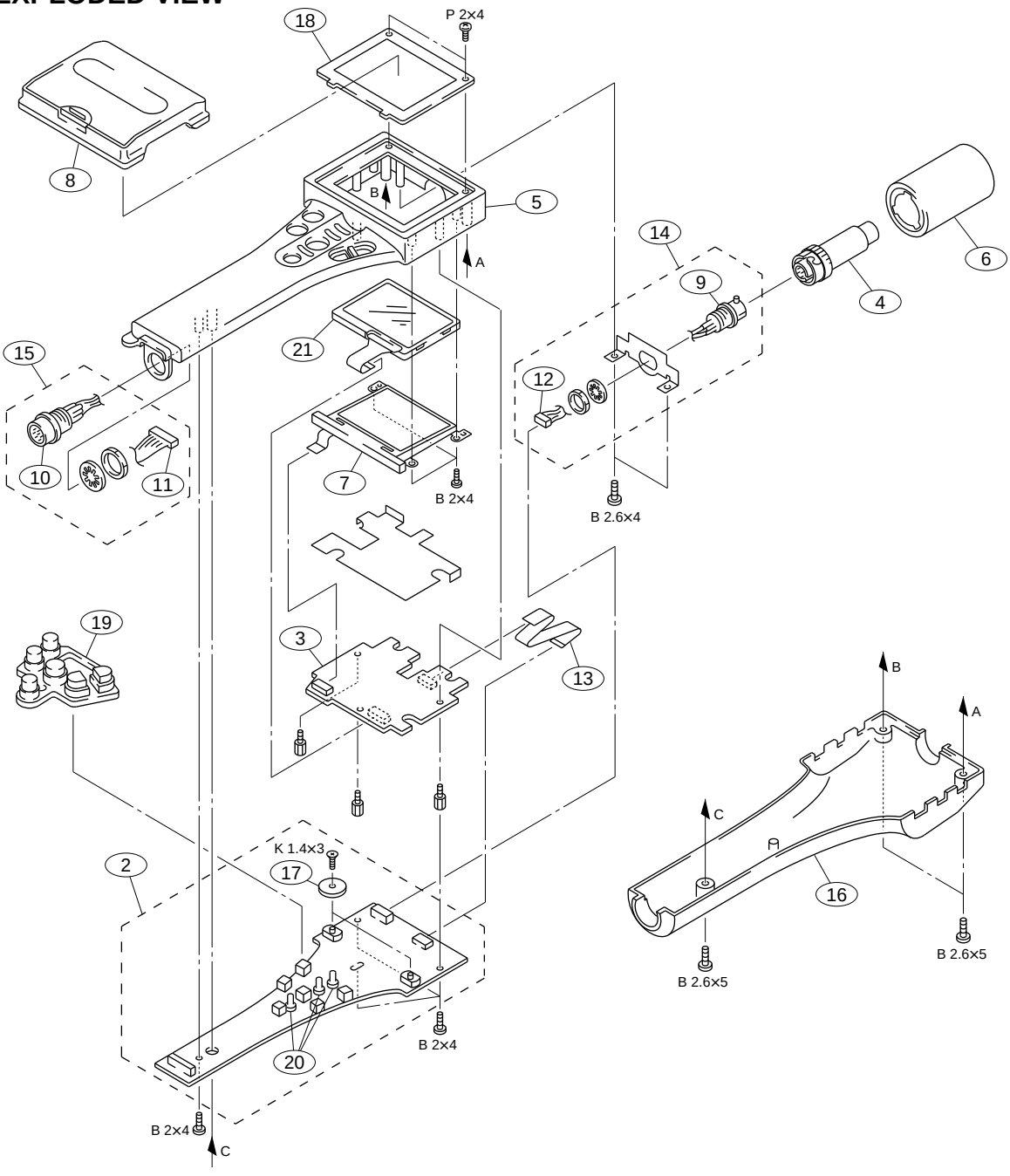
(2) 部品の共通化
ソニーから供給される部品は，セットに実装されているものと異なることがあります。これは部品の共通化，改良等によるものです。
分解図や電気部品表には現時点での共通化された部品が記載されています。

(3) 部品の在庫
部品表のSP (Supply code) 欄に“o”で示される部品は交換頻度が低い部品ですので在庫していないことがあり，納期が長くなることがあります。

(4) コンデンサ，インダクタ，抵抗の単位
回路図，分解図，電気部品表中，特に明記したものを除き，下記の単位は省略されています。

コンデンサ : µF
インダクタ : µH
抵抗 : Ω

4-2. EXPLODED VIEW



No.	Part No.	SP	Description
1	A-4510-090-A	s	CAPSULE ASSY
2	A-8321-523-A	o	MOUNTED CIRCUIT BOARD, DU-35
3	A-8321-524-A	o	MOUNTED CIRCUIT BOARD, DR-395 [For RM-VJ1]
	A-8321-530-A	o	MOUNTED CIRCUIT BOARD, DR-395P [For RM-VJ1P]
4	A-8321-525-A	o	MICROPHONE ASSY
5	X-3605-344-1	o	CASE, TOP ASSY
6	X-3605-346-1	s	WINDSCREEN ASSY
7	1-517-868-11	s	BACKLIGHT
8	3-977-660-02	o	HOOD
9	1-561-376-11	s	CONNECTOR, 4P FEMALE (MIC)
10	1-563-944-11	s	CONNECTOR, 10P MALE (REMOTE)
11	1-569-520-11	o	HOUSING, 10P
12	1-569-619-11	o	HOUSING, 4P
13	1-790-584-11	s	CABLE, FLEXIBLE FLAT (15 CORE)
14	1-959-403-11	s	HARNESS, SUB (MIC)
15	1-959-404-11	s	HARNESS, SUB (COM)
16	3-616-747-01	o	CASE, BOTTOM
17	3-616-749-01	o	KNOB, VOLUME
18	3-616-750-01	s	LCD COVER
19	3-616-752-01	o	SW COVER
20	3-616-757-01	o	HOLDER, LED
21	8-753-050-06	s	LCD DCX501BK-6
	7-621-772-18	s	SCREW +B 2X4
	7-621-773-86	s	SCREW +B 2.6X4
	7-621-775-20	s	SCREW +B 2.6X5
	7-627-451-27	s	SCREW, PRECISION +K 1.4X3
	7-627-853-28	s	SCREW, PRECISION +P 2X3 TYPE3

http://getMANUAL.com

4-3. ELECTRICAL PARTS LIST

DR-395/395P BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-524-A	o	MOUNTED CIRCUIT BOARD, DR-395 [for RM-VJ1]
1pc	A-8321-530-A	o	MOUNTED CIRCUIT BOARD, DR-395P [for RM-VJ1P]
C35	1-104-919-11	s	TANTALUM, CHIP 10uF 20% 25V
C36	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C37	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V
C38	1-162-920-11	s	CERAMIC, CHIP 27PF 5% 50V
C39	1-113-682-11	s	TANTALUM, CHIP 33uF 20% 10V
C40	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C41	1-163-021-91	s	CERAMIC 0.01uF 10% 50V
C42	1-113-520-11	s	CERAMIC, CHIP 10PF 10% 3KV
C43	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C44	1-135-179-21	s	TANTALUM, CHIP 2.2uF 10% 16V
C45	1-125-827-91	s	CERAMIC, CHIP 1uF 10% 25V
C46	1-164-227-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C47	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C48	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C60	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C61	1-104-919-11	s	TANTALUM, CHIP 10uF 20% 25V
C62	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C63	1-113-682-11	s	TANTALUM, CHIP 33uF 20% 10V
C64	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C65	1-113-987-11	s	TANTALUM, CHIP 4.7uF 20% 25V
C66	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C67	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C68	1-113-985-11	s	TANTALUM, CHIP 10uF 20% 20V
C69	1-125-827-91	s	CERAMIC, CHIP 1uF 10% 25V
C70	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C71	1-113-985-11	s	TANTALUM, CHIP 10uF 20% 20V
C72	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C73	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C74	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C75	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C76	1-113-682-11	s	TANTALUM, CHIP 33uF 20% 10V
C77	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C78	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C79	1-107-826-91	s	CERAMIC, CHIP 0.1uF 10% 16V
C80	1-107-826-91	s	CERAMIC, CHIP 0.1uF 10% 16V
C81	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C82	1-115-340-11	s	CERAMIC, CHIP 0.22uF 10% 25V
C83	1-164-344-11	s	CERAMIC, CHIP 0.068uF 10% 25V
C84	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V [for RM-VJ1P]
C85	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
C86	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C87	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C88	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C89	1-135-145-11	s	TANTALUM, CHIP 0.47uF 10% 35V
C90	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C91	1-110-569-11	s	TANTALUM, CHIP 47uF 20% 6.3V
C92	1-113-994-11	s	TANTALUM, CHIP 6.8uF 20% 16V
C93	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C94	1-164-677-11	s	CERAMIC, CHIP 0.033uF 10% 16V
C95	1-104-912-11	s	TANTALUM, CHIP 3.3uF 20% 16V
C96	1-162-969-11	s	CERAMIC, CHIP 0.0068uF 10% 25V
C97	1-162-957-11	s	CERAMIC, CHIP 220PF 5% 50V
C98	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C99	1-162-918-11	s	CERAMIC, CHIP 18PF 5% 50V

(DR-395/395P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C100	1-135-213-21	s	TANTALUM, CHIP 3.3uF 20% 25V
C101	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C102	1-164-506-11	s	CERAMIC 4.7uF 16V
C103	1-135-177-21	s	TANTALUM, CHIP 1uF 10% 25V
CN1	1-569-352-11	o	HOUSING, 10P
CN2	1-774-261-11	o	CONNECTOR, FFC (ZIF) 24P
CN5	1-785-840-21	o	CONNECTOR, FFC (ZIF) 15P
D5	8-719-056-23	s	DIODE MA2S111-(K8).SO
D6	8-713-102-80	s	DIODE 1T369-01-T8A
D11	8-719-033-14	s	DIODE CL-170PG-CD-T:GREEN
IC4	8-759-983-96	s	IC TL5001CPS-E05
IC5	8-759-075-70	s	IC TA75S393F
IC6	8-752-080-90	s	IC CXA2543R-T6
L10	1-412-056-11	s	INDUCTOR, CHIP 4.7uH
L11	1-409-529-41	s	INDUCTOR 10uH
L12	1-409-536-41	s	INDUCTOR 150uH
L20	1-412-058-11	s	INDUCTOR CHIP 10uH
L21	1-412-058-11	s	INDUCTOR CHIP 10uH
L22	1-412-058-11	s	INDUCTOR CHIP 10uH
L23	1-412-058-11	s	INDUCTOR CHIP 10uH
L24	1-412-058-11	s	INDUCTOR CHIP 10uH
L25	1-412-056-11	s	INDUCTOR, CHIP 4.7uH
L26	1-410-392-11	s	INDUCTOR, CHIP 82uH [for RM-VJ1]
L26	1-410-390-11	s	INDUCTOR, CHIP 56uH [for RM-VJ1P]
L27	1-410-377-31	s	INDUCTOR, CHIP 4.7uH
Q10	8-729-037-52	s	TRANSISTOR 2SD2216J-QR(TX).SO
Q11	8-729-823-82	s	TRANSISTOR FP101
Q12	8-729-039-43	s	TRANSISTOR FP216-TL
Q13	8-729-037-60	s	TRANSISTOR UN9112J-(TX).SO
Q14	8-729-037-75	s	TRANSISTOR UN9214J-(TX).SO
Q15	8-729-037-74	s	TRANSISTOR UN9213J-(TX).SO
Q16	8-729-037-74	s	TRANSISTOR UN9213J-(TX).SO
Q17	8-729-037-52	s	TRANSISTOR 2SD2216J-QR(TX).SO
Q18	8-729-037-52	s	TRANSISTOR 2SD2216J-QR(TX).SO
Q19	8-729-037-74	s	TRANSISTOR UN9213J-(TX).SO
Q20	8-729-037-60	s	TRANSISTOR UN9112J-(TX).SO
Q29	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q32	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q33	8-729-026-53	s	TRANSISTOR 2SA1576A-T106-QR
Q34	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q35	8-729-026-53	s	TRANSISTOR 2SA1576A-T106-QR
Q36	8-729-427-74	s	TRANSISTOR XP4601
Q37	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R30	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R31	1-218-879-11	s	METAL, CHIP 22K 0.50% 1/16W
R32	1-218-841-11	s	METAL, CHIP 560 0.50% 1/16W
R33	1-218-857-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R34	1-218-857-11	s	METAL, CHIP 2.7K 0.50% 1/16W
R35	1-218-897-11	s	METAL, CHIP 120K 0.50% 1/16W
R36	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R37	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R38	1-218-871-11	s	METAL, CHIP 10K 0.50% 1/16W
R39	1-218-867-11	s	METAL, CHIP 6.8K 0.50% 1/16W
R40	1-218-863-11	s	METAL, CHIP 4.7K 0.50% 1/16W
R41	1-218-851-11	s	METAL, CHIP 1.5K 0.50% 1/16W
R42	1-218-859-11	s	METAL, CHIP 3.3K 0.50% 1/16W
R43	1-218-851-11	s	METAL, CHIP 1.5K 0.50% 1/16W

(DR-395/395P BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R44	1-218-863-11	s	METAL, CHIP 4.7K 0.50% 1/16W
R45	1-218-851-11	s	METAL, CHIP 1.5K 0.50% 1/16W
R46	1-218-895-11	s	METAL, CHIP 100K 0.50% 1/16W
R47	1-218-871-11	s	METAL, CHIP 10K 0.50% 1/16W
R48	1-218-879-11	s	METAL, CHIP 22K 0.50% 1/16W
R49	1-218-847-11	s	METAL, CHIP 1K 0.50% 1/16W
R50	1-218-825-11	s	METAL, CHIP 120 0.50% 1/16W
R59	1-216-864-11	s	METAL, CHIP 0 5% 1/16W [for RM-VJ1]
R60	1-218-866-11	s	METAL, CHIP 6.2K 0.50% 1/16W
R61	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R62	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R63	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R64	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R65	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R66	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R67	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R69	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R71	1-218-902-11	s	METAL, CHIP 200K 0.50% 1/16W
R72	1-218-873-11	s	METAL, CHIP 12K 0.50% 1/16W
R73	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R74	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R76	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R77	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R79	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R80	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R81	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R82	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R83	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R84	1-216-846-11	s	METAL, CHIP 120K 5% 1/16W
R85	1-216-842-11	s	METAL, CHIP 56K 5% 1/16W
R86	1-208-810-11	s	METAL, CHIP 15K 0.50% 1/10W
R87	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R88	1-218-844-11	s	METAL, CHIP 750 0.50% 1/16W
R89	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R90	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R91	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R92	1-216-820-11	s	METAL, CHIP 820 5% 1/16W
R93	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R94	1-218-894-11	s	METAL, CHIP 91K 0.50% 1/16W
R95	1-218-894-11	s	METAL, CHIP 91K 0.50% 1/16W
R96	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R97	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R98	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R99	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W [for RM-VJ1P]
R100	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R101	1-211-990-11	s	METAL, CHIP 75 0.50% 1/16W
RV1	1-223-441-21	s	RES, ADJ, METAL 47K
RV2	1-223-441-21	s	RES, ADJ, METAL 47K
RV3	1-223-441-21	s	RES, ADJ, METAL 47K
RV4	1-223-441-21	s	RES, ADJ, METAL 47K
T2	1-429-803-21	s	TRANSFORMER, INVERTER
X1	1-579-466-11	s	VIBRATOR, CRYSTAL 3.57954500 MHz [for RM-VJ1]
X1	1-579-661-21	s	OSCILLATOR, CRYSTAL 4.4336190 MHz [for RM-VJ1P]

DU-35 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8321-523-A	o	MOUNTED CIRCUIT BOARD, DU-35
1pc	3-616-749-01	o	VOLUME
1pc	3-616-757-01	o	HOLDER,LED
1pc	7-627-451-27	s	SCREW, PRECISION +K 1.4X3
C1	1-104-919-11	s	TANTALUM, CHIP 10uF 20% 25V
C2	1-135-210-11	s	TANTALUM, CHIP 4.7uF 20% 10V
C3	1-135-180-21	s	TANTALUM, CHIP 33uF 10% 10V
C4	1-163-989-11	s	CERAMIC, CHIP 0.033uF 10% 25V
C5	1-163-133-00	s	CERAMIC, CHIP 470PF 5% 50V
C6	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C7	1-135-180-21	s	TANTALUM, CHIP 33uF 10% 10V
C8	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C9	1-127-530-11	s	ELECT 22uF 20% 20V
C10	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C11	1-163-037-11	s	CERAMIC, CHIP 0.022uF 10% 25V
C12	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C13	1-117-154-11	s	ELECT 33uF 20% 16V
C14	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C15	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C16	1-126-155-11	s	ELECT 100uF 20% 6.3
C17	1-126-155-11	s	ELECT 100uF 20% 6.3
C18	1-126-155-11	s	ELECT 100uF 20% 6.3
C19	1-126-155-11	s	ELECT 100uF 20% 6.3
C20	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C21	1-127-530-11	s	ELECT 22uF 20% 20V
C22	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C23	1-117-154-11	s	ELECT 33uF 20% 16V
C24	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C25	1-117-154-11	s	ELECT 33uF 20% 16V
C26	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C27	1-128-526-11	s	ELECT 100uF 20% 25V
C28	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C29	1-128-526-11	s	ELECT 100uF 20% 25V
C30	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C31	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C32	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C33	1-117-154-11	s	ELECT 33uF 20% 16V
C34	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C49	1-128-526-11	s	ELECT 100uF 20% 25V
C50	1-135-210-11	s	TANTALUM, CHIP 4.7uF 20% 10V
C51	1-163-038-00	s	CERAMIC, CHIP 0.1uF 25V
C150	1-107-689-21	s	TANTALUM, CHIP 1uF 20% 35V
C151	1-163-235-11	s	CERAMIC, CHIP 22PF 5% 50V
C152	1-163-235-11	s	CERAMIC, CHIP 22PF 5% 50V
C154	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C155	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C156	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C157	1-107-823-11	s	CERAMIC, CHIP 0.47uF 10% 16V
C158	1-113-682-11	s	TANTALUM, CHIP 33uF 20% 10V
C159	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C160	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C161	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C170	1-104-823-11	s	TANTALUM, CHIP 47uF 20% 16V
C171	1-115-581-11	s	TANTALUM, CHIP 100uF 20% 16
C172	1-163-021-91	s	CERAMIC 0.01uF 10% 50V
C173	1-163-021-91	s	CERAMIC 0.01uF 10% 50V
C174	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C175	1-164-315-11	s	CERAMIC, CHIP 470PF 5% 50V
C176	1-113-992-11	s	TANTALUM, CHIP 3.3uF 20% 35V

(DU-35 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C177	1-110-457-11	s	ELECT, CHIP 3.3uF 20% 25V
C178	1-110-457-11	s	ELECT, CHIP 3.3uF 20% 25V
C179	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C180	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C181	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C182	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C183	1-162-923-11	s	CERAMIC, CHIP 47PF 5% 50V
C184	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C185	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C186	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C187	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C188	1-163-021-91	s	CERAMIC 0.01uF 10% 50V
C189	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
CN3	1-580-057-11	o	PIN, CONNECTOR 4P
CN4	1-785-840-21	o	CONNECTOR, FFC (ZIF) 15P
CN6	1-766-382-11	o	PIN, CONNECTOR 10P
D1	8-719-938-75	s	DIODE SB05-05CP
D2	8-719-938-75	s	DIODE SB05-05CP
D3	8-719-938-75	s	DIODE SB05-05CP
D4	8-719-938-75	s	DIODE SB05-05CP
D7	8-719-820-41	s	DIODE 1SS302
D8	8-719-820-41	s	DIODE 1SS302
D9	8-719-938-75	s	DIODE SB05-05CP
D12	8-719-056-06	s	DIODE SLR-342DC3F:ORANGE
D13	8-719-056-07	s	DIODE SLR-342MC3F:GREEN
D14	8-719-059-98	s	DIODE SLR-342VC3F:RED
FB1	1-469-092-11	o	FERRITE BEAD 0uH
FB2	1-469-092-11	o	FERRITE BEAD 0uH
FB3	1-469-092-11	o	FERRITE BEAD 0uH
FB4	1-469-092-11	o	FERRITE BEAD 0uH
FB5	1-469-092-11	o	FERRITE BEAD 0uH
FB6	1-469-092-11	o	FERRITE BEAD 0uH
FB7	1-469-092-11	o	FERRITE BEAD 0uH
FB8	1-469-092-11	o	FERRITE BEAD 0uH
FB9	1-469-092-11	o	FERRITE BEAD 0uH
FB10	1-469-092-11	o	FERRITE BEAD 0uH
FB11	1-469-092-11	o	FERRITE BEAD 0uH
IC1	8-759-066-68	s	IC REF-03GS
IC2	8-759-260-57	s	IC TL1451ACPW-E05
IC3	8-729-045-28	s	TRANSISTOR SI4532DY-T1
IC11	8-759-242-64	s	IC TC4W53F
IC12	8-759-542-91	s	IC S-80840ANUP-ED4-T2
IC14	8-759-589-61	s	IC HD6435368AW97F
IC15	8-759-484-69	s	IC MAX3221CAE-TE2
IC16	8-759-111-56	s	IC UPC4572G2
IC17	8-759-385-17	s	IC NJM4580E(TE2)
IC18	8-749-015-74	s	HIC AQW210SZ
IC19	8-759-086-41	s	IC X24C02S-3.0
IC20	8-759-031-84	s	IC TC7S04F
L1	1-424-643-11	s	INDUCTOR 0uH
L2	1-409-722-11	s	INDUCTOR 220uH
L3	1-424-643-11	s	INDUCTOR 0uH
L4	1-424-643-11	s	INDUCTOR 0uH
L5	1-424-643-11	s	INDUCTOR 0uH
L6	1-424-643-11	s	INDUCTOR 0uH
L7	1-424-643-11	s	INDUCTOR 0uH
L8	1-424-643-11	s	INDUCTOR 0uH

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Ref. No. or Q'ty	Part No.	SP	Description
L9	1-424-643-11	s	INDUCTOR 0uH
L13	1-424-643-11	s	INDUCTOR 0uH
L18	1-412-061-21	s	INDUCTOR, CHIP 33uH
L19	1-412-060-11	s	INDUCTOR, CHIP 22uH
Q1	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q2	8-729-216-22	s	TRANSISTOR 2SA1162
Q3	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4	8-729-216-22	s	TRANSISTOR 2SA1162
Q5	8-729-018-50	s	TRANSISTOR IRFR9020-TR
Q40	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q41	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q45	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q46	8-729-026-53	s	TRANSISTOR 2SA1576A-T106-QR
Q47	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q48	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q49	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q50	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q55	8-729-905-35	s	TRANSISTOR 2SC4081-R
Q56	8-729-905-35	s	TRANSISTOR 2SC4081-R
R1	1-208-798-11	s	METAL, CHIP 4.7K 0.50% 1/10W
R2	1-208-798-11	s	METAL, CHIP 4.7K 0.50% 1/10W
R3	1-208-818-11	s	METAL, CHIP 33K 0.50% 1/10W
R4	1-208-820-11	s	METAL, CHIP 39K 0.50% 1/10W
R5	1-208-806-11	s	METAL, CHIP 10K 0.50% 1/10W
R6	1-208-810-11	s	METAL, CHIP 15K 0.50% 1/10W
R7	1-208-838-91	s	METAL, CHIP 220K 0.50% 1/10W
R8	1-208-793-11	s	METAL, CHIP 3K 0.50% 1/10W
R9	1-208-772-11	s	METAL, CHIP 390 0.50% 1/10W
R10	1-208-806-11	s	METAL, CHIP 10K 0.50% 1/10W
R11	1-208-838-91	s	METAL, CHIP 220K 0.50% 1/10W
R12	1-208-815-11	s	METAL, CHIP 24K 0.50% 1/10W
R13	1-208-815-11	s	METAL, CHIP 24K 0.50% 1/10W
R14	1-208-791-11	s	METAL, CHIP 2.4K 0.50% 1/10W
R15	1-208-773-11	s	METAL, CHIP 430 0.50% 1/10W
R16	1-208-818-11	s	METAL, CHIP 33K 0.50% 1/10W
R17	1-208-822-11	s	METAL, CHIP 47K 0.50% 1/10W
R18	1-208-798-11	s	METAL, CHIP 4.7K 0.50% 1/10W
R19	1-208-798-11	s	METAL, CHIP 4.7K 0.50% 1/10W
R20	1-208-792-11	s	METAL, CHIP 2.7K 0.50% 1/10W
R21	1-208-820-11	s	METAL, CHIP 39K 0.50% 1/10W
R22	1-208-750-11	s	METAL, CHIP 47 0.50% 1/10W
R23	1-208-806-11	s	METAL, CHIP 10K 0.50% 1/10W
R24	1-208-758-11	s	METAL, CHIP 100 0.50% 1/10W
R25	1-208-806-11	s	METAL, CHIP 10K 0.50% 1/10W
R26	1-208-806-11	s	METAL, CHIP 10K 0.50% 1/10W
R27	1-208-792-11	s	METAL, CHIP 2.7K 0.50% 1/10W
R28	1-216-603-11	s	METAL, CHIP 10 0.50% 1/10W
R55	1-216-295-11	s	CONDUCTOR, CHIP 0
R56	1-216-295-11	s	CONDUCTOR, CHIP 0
R156	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R157	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R158	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R159	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R160	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R161	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R162	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R163	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R164	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R165	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W

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Ref. No. or Q'ty	Part No.	SP	Description
R166	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R168	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R169	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R170	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R171	1-216-849-11	s	METAL, CHIP 220K 5% 1/16W
R172	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R173	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R174	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R176	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R177	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R178	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R179	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R180	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R181	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R182	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R183	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R184	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R185	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R186	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R187	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R188	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R189	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R190	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R191	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R193	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R194	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R195	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R196	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R197	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R198	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R199	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R200	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R201	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R202	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R204	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R206	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R208	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R209	1-218-859-11	s	METAL, CHIP 3.3K 0.50% 1/16W
R210	1-218-895-11	s	METAL, CHIP 100K 0.50% 1/16W
R211	1-218-895-11	s	METAL, CHIP 100K 0.50% 1/16W
R212	1-218-861-11	s	METAL, CHIP 3.9K 0.50% 1/16W
R213	1-218-872-11	s	METAL, CHIP 11K 0.50% 1/16W
R215	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R216	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R218	1-218-861-11	s	METAL, CHIP 3.9K 0.50% 1/16W
R219	1-218-872-11	s	METAL, CHIP 11K 0.50% 1/16W
R220	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R221	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R222	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R223	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R224	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R225	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R226	1-216-819-11	s	METAL, CHIP 680 5% 1/16W
R227	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R228	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R230	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R231	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R232	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R233	1-218-882-11	s	METAL, CHIP 30K 0.50% 1/16W

(DU-35 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R234	1-218-882-11	s	METAL, CHIP 30K 0.50% 1/16W
R235	1-218-876-11	s	METAL, CHIP 16K 0.50% 1/16W
R236	1-218-887-11	s	METAL, CHIP 47K 0.50% 1/16W
R240	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R242	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R243	1-218-846-11	s	METAL, CHIP 910 0.50% 1/16W
R244	1-218-835-11	s	METAL, CHIP 330 0.50% 1/16W
R245	1-218-846-11	s	METAL, CHIP 910 0.50% 1/16W
R246	1-218-835-11	s	METAL, CHIP 330 0.50% 1/16W
R247	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
RB1	1-239-309-11	s	RESISTOR BLOCK, CHIP 100KX8
RB2	1-239-309-11	s	RESISTOR BLOCK, CHIP 100KX8
RB3	1-239-309-11	s	RESISTOR BLOCK, CHIP 100KX8
RB5	1-239-309-11	s	RESISTOR BLOCK, CHIP 100KX8
RB6	1-239-308-11	s	RESISTOR BLOCK, CHIP 47KX8
RB7	1-239-308-11	s	RESISTOR BLOCK, CHIP 47KX8
RV20	1-223-710-11	s	RES, VAR, CARBON 10K/10K
RV21	1-241-423-11	s	RES, VAR, CARBON 20K
S1	1-553-875-00	s	SWITCH, RUBBER
S2	1-553-875-00	s	SWITCH, RUBBER
S3	1-553-875-00	s	SWITCH, RUBBER
S4	1-553-875-00	s	SWITCH, RUBBER
S5	1-553-875-00	s	SWITCH, RUBBER
S6	1-553-875-00	s	SWITCH, RUBBER
S8	1-771-271-11	s	SWITCH, SLIDE
S11	1-572-658-21	s	SWITCH, ROTARY
T1	1-433-722-21	s	TRANSFORMER, DC-DC CONVERTER
X2	1-760-273-11	s	VIBRATOR, CRYSTAL 20.000000 MHz

4-4. HARNESSES/FLEXIBLE CARD WIRE LIST

Ref. No. or Q'ty	Part No.	SP	Description
HN101	1-959-404-11	s	HARNESS, SUB (COM)
(CN102)	1-563-944-11	s	CONNECTOR 10P, MALE "REMOTE"
(TO CN6/DU-35 BOARD)			
	1-569-520-11	o	HOUSING, 10P
	1-766-387-11	o	CONTACT, FEMALE AWG #26-28
HN102	1-959-403-11	s	HARNESS, SUB (MIC)
(CN101)	1-561-376-11	s	CONNECTOR 4P, FEMALE "MIC"
(TO CN3/DU-35 BOARD)			
	1-569-619-11	o	HOUSING, 4P
	1-766-387-11	o	CONTACT, FEMALE AWG #26-28
HN103	1-790-584-11	o	CABLE, FLEXIBLE CARD (15-CORE) (CN4/DU-35 BOARD TO CN4/DR-395 BOARD)

4-5. SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	2-545-494-01	s	STRAP
1pc	3-865-908-01	s	MANUAL, INSTRUCTION
CCA-7-7A CABLE			
1pc	1-785-974-11	o	CONNECTOR 10P, MALE
1pc	1-566-437-11	o	CONNECTOR 10P, FEMALE

SECTION 5
SEMICONDUCTOR PIN ASSIGNMENTS

Semiconductors of which functions are equivalent are described here. For parts replacement, refer to the section of Spare Parts in this manual. The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

ここに記載されている半導体は，それぞれの機能を等価的に表したものです。　なお，互換性のない型名を併記していることがありますので，部品を交換するときは，Spare Partsの章を参照してください。
等価回路はICメーカーのデータブックに従いました。

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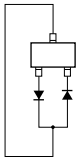
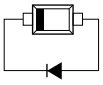
DIODE

—TOP VIEW—



1SS302
1SS302-TE85L

—TOP VIEW—



1T369-01-T8A

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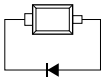
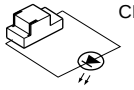


MA2S111-(K8)
MA2S111-(K8).SO

—TOP VIEW—

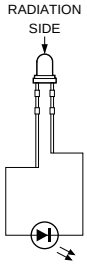
SB05-05CP
SB05-05CP-TB

LED



CL-170PG-CD-T

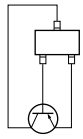
RADIATION SIDE



SLR-342DC3F
SLR-342MC3F
SLR-342VC3F

TRANSISTOR

—TOP VIEW—



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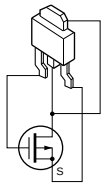
2SA812-T1M7



IRFR9020-TR

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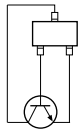

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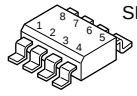
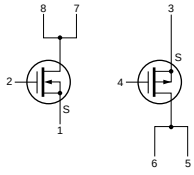
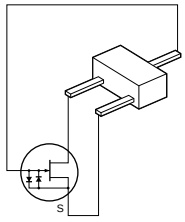
2SC1623-T1L7
2SC4081T106R
2SD2216J-QR(K8).SO
2SD2216J-QR(TX).SO



SI4532DY-T1





2SK67A-J5

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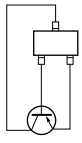
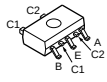
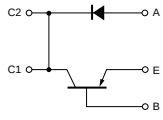


UN9112J-(TX).SO



FP101
FP101-TL



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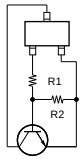
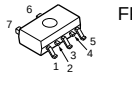
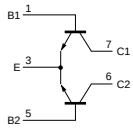


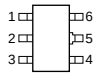
UN9213J-(TX).SO
(R1, R2=47 K)
UN9214J-(TX).S
(R1=10 K, R2=47 K)
UN9214J-(TX).SO



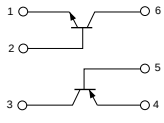
FP216-TL



—TOP VIEW—



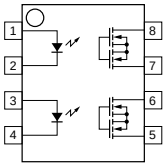
XP4601-TXE



IC

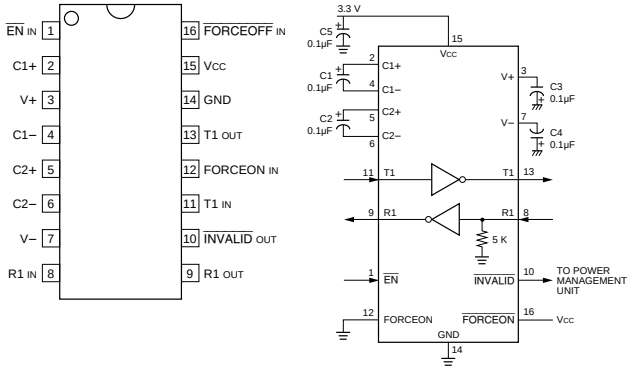
AQW210SZ (MATSUSHITA)

PHOTO MOS RELAY
—TOP VIEW—



MAX3221CAE (MAXIM)
MAX3221CAE-TE2

RS-232C TRANSCEIVER
—TOP VIEW—



INPUTS

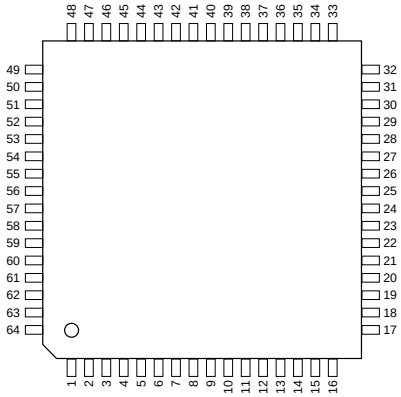
$\overline{EN}$	:	RECEIVER ENABLE CONTROL
C1+, C2+	:	CHARGE PUMP CAPACITOR (+)
C1–, C2–	:	CHARGE PUMP CAPACITOR (–)
$\overline{FORCEOFF}$	:	FORCE OFF
FORCEON	:	FORCE ON
R1	:	RECEIVER
T1	:	TTL/CMOS TRANSMITTER

OUTPUTS

$\overline{INVALID}$	:	LEVEL VALIDITY DETECT
R1	:	TTL/CMOS RECEIVER
T1	:	TRANSMITTER
V+	:	+5.5 V
V–	:	–5.5 V

CXA2543R (SONY)

DECODER/DRIVER/TIMING GENERATOR FOR COLOR LCD
—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	TRAP	17	O	$\overline{HST}$	33	I	SCLK	49	—	VCC1
2	—	GND1	18	O	HST	34	I	DATA	50	I	SIG.CENTER
3	I	SYNC IN	19	O	HCK2	35	I	LOAD	51	I	B-Y IN
4	O	H.FIL	20	O	HCK1	36	I	RGT	52	I	R-Y IN
5	I	S.SEP IN	21	O	$\overline{PCG}$	37	O	FB PSIG	53	O	C OUT
6	I	EXT R	22	O	PCG	38	—	GND3	54	I	BLK LIM
7	I	EXT G	23	O	HD	39	O	PSIG	55	O	APC
8	I	EXT B	24	I	FLD IN	40	—	VCC3	56	O	VXO OUT
9	I	VD IN	25	O	$\overline{VST}$	41	O	B OUT	57	I	VXO IN
10	I	TEST1	26	O	VST	42	O	FB B	58	O	V REG
11	I	TEST2	27	O	VCK2	43	—	GND2	59	I	C IN
12	O	RPD	28	O	VCK1	44	O	G OUT	60	I	TEST3
13	—	VSS1	29	O	$\overline{EN}$	45	O	FB G	61	I	Y IN
14	I	CKI	30	O	EN	46	O	R OUT	62	I	PIC
15	O	CKO	31	—	VSS2	47	O	FB R	63	O	F0 ADJ
16	—	VDD1	32	O	VD	48	—	VCC2	64	I	PWRST

INPUTS

B-Y IN	:	B-Y DEMODULATION
BLK LIM	:	BLACK PEAK LIMIT LEVEL CONTROL
C IN	:	CHROMA SIGNAL
CKI	:	OSCILLATOR
DATA	:	SERIAL INTERFACE DATA
EXT B	:	EXT DIGITAL B
EXT G	:	EXT DIGITAL G
EXT R	:	EXT DIGITAL R
FLD IN	:	FIELD ID
LOAD	:	SERIAL INTERFACE LOAD
PIC	:	FREQUENCY RESPONSE OF Y SIGNAL
PWRST	:	SYSTEM RESET
R-Y IN	:	R-Y DEMODULATION
RGT	:	SCAN SELECT
S.SEP IN	:	SYNC SEPARATOR
SCLK	:	SERIAL INTERFACE CLOCK
SIG.CENTER	:	DC VOLTAGE CONTROL OF R, G, B, PSIG
SYNC IN	:	VIDEO INPUT FOR SYNC SEPARATOR
TEST1 - TEST3	:	(FOR TEST)
VD IN	:	EXT VD
VXO IN	:	VARIABLE CRYSTAL OSCILLATOR
Y IN	:	Y SIGNAL

OUTPUTS

APC	:	APC DETECTION FILTER
B OUT	:	B SIGNAL
C OUT	:	CHROMA SIGNAL
CKO	:	OSCILLATOR
EN	:	EN PULSE
$\overline{EN}$	:	$\overline{EN}$ PULSE
FB B	:	DC VOLTAGE FEEDBACK FOR B SIGNAL
FB G	:	DC VOLTAGE FEEDBACK FOR G SIGNAL
FB PSIG	:	DC VOLTAGE FEEDBACK FOR PSIG
FB R	:	DC VOLTAGE FEEDBACK FOR R SIGNAL
F0 ADJ	:	INTERNAL FILTER ADJUSTING RESISTOR
G OUT	:	G SIGNAL
H.FIL OUT	:	VIDEO OUTPUT FOR SYNC INPUT
HCK1, HCK2	:	H CLOCK 1, 2
HD	:	HD PULSE
HST	:	H START PULSE
$\overline{HST}$	:	$\overline{H}$ START PULSE
PCG	:	PCG PULSE
$\overline{PCG}$	:	$\overline{PCG}$ PULSE
PSIG	:	PSIG
R OUT	:	R SIGNAL
RPD	:	PHASE COMPARATOR
V REG	:	VOLTAGE REGULATOR CAPACITOR CONNECTION
VCK1, VCK2	:	V CLOCK PULSE 1, 2
VD	:	VD PULSE
VST	:	V START PULSE
$\overline{VST}$	:	$\overline{V}$ START PULSE
VXO OUT	:	VARIABLE CRYSTAL OSCILLATOR

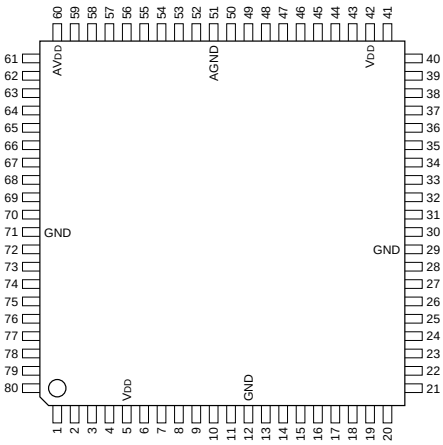
OTHER

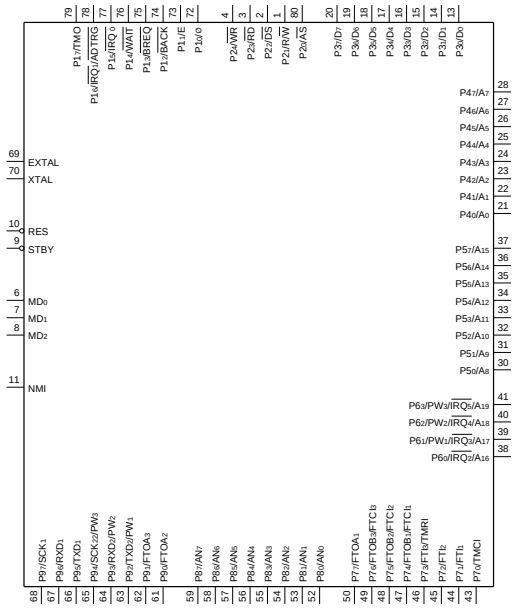
TRAP	:	EXTERNAL TRAP

HD6435368AW97F (HITACHI)

16-BIT MICRO COMPUTER UNIT

—TOP VIEW—





PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I/O	P21/R/$\overline{W}$	41	I/O	P63/PW3/$\overline{IRQ5}$/A19
2	I/O	P22/$\overline{DS}$	42	—	VDD
3	I/O	P23/$\overline{RD}$	43	I/O	P70/TMCI
4	I/O	P24/$\overline{WR}$	44	I/O	P71/FTI1
5	—	VDD	45	I/O	P72/FTI2
6	I	MD0	46	I/O	P73/FTI3/TMRI
7	I	MD1	47	I/O	P74/FTOB1/FTCI1
8	I	MD2	48	I/O	P75/FTOB2/FTCI2
9	I	$\overline{STBY}$	49	I/O	P76/FTOB3/FTCI3
10	I/O	$\overline{RES}$	50	I/O	P77/FTOA1
11	I	NMI	51	—	AGND
12	—	GND	52	I	P80/AN0
13	I/O	P30/D0	53	I	P81/AN1
14	I/O	P31/D1	54	I	P82/AN2
15	I/O	P32/D2	55	I	P83/AN3
16	I/O	P33/D3	56	I	P84/AN4
17	I/O	P34/D4	57	I	P85/AN5
18	I/O	P35/D5	58	I	P86/AN6
19	I/O	P36/D6	59	I	P87/AN7
20	I/O	P37/D7	60	—	AVDD
21	I/O	P40/A0	61	I/O	P90/FTOA2
22	I/O	P41/A1	62	I/O	P91/FTOA3
23	I/O	P42/A2	63	I/O	P92/TXD2/PW1
24	I/O	P43/A3	64	I/O	P93/RXD2/PW2
25	I/O	P44/A4	65	I/O	P94/SCK2/PW3
26	I/O	P45/A5	66	I/O	P95/TXD1
27	I/O	P46/A6	67	I/O	P96/RXD1
28	I/O	P47/A7	68	I/O	P97/SCK1
29	—	GND	69	I	EXTAL
30	I/O	P50/A8	70	I	XTAL
31	I/O	P51/A9	71	—	GND
32	I/O	P52/A10	72	I/O	P10/Ø
33	I/O	P53/A11	73	I/O	P11/E
34	I/O	P54/A12	74	I/O	P12/$\overline{BACK}$
35	I/O	P55/A13	75	I/O	P13/$\overline{BREQ}$
36	I/O	P56/A14	76	I/O	P14/$\overline{WAIT}$
37	I/O	P57/A15	77	I/O	P15/$\overline{IRQ0}$
38	I/O	P60/$\overline{IRQ2}$/A16	78	I/O	P16/$\overline{IRQ1}$/$\overline{ADTRG}$
39	I/O	P61/PW1/$\overline{IRQ3}$/A17	79	I/O	P17/TMO
40	I/O	P62/PW2/$\overline{IRQ4}$/A18	80	I/O	P20/$\overline{AS}$

INPUT

$\overline{ADTRG}$	; EXTERNAL TRIGGER
AN0 - AN7	; ANALOG DATA
$\overline{BREQ}$	; BUS REQUEST
EXTAL	; CONNECTED TO CRYSTAL OSCILLATOR
FTCI1 - FTCI3	; FRT COUNTER CLOCK (CHANNEL 1 TO 3)
FTI1 - FTI3	; FRT INPUT CAPTURE (CHANNEL 1 TO 3)
$\overline{IRQ0}$ - $\overline{IRQ5}$	; INTERRUPTION REQUEST
MD0 - MD2	; MODE SETTING
NMI	; NON MASKABLE INTERRUPTION
P80 - P87	; PORT 8
RXD1, 2	; RECEIVE DATA
$\overline{STBY}$	; STANDBY
TMCI	; 8-BIT TIMER CLOCK
TMRI	; 8-BIT TIMER COUNTER RESET
$\overline{WAIT}$	; WAIT
XTAL	; CONNECTED TO CRYSTAL OSCILLATOR

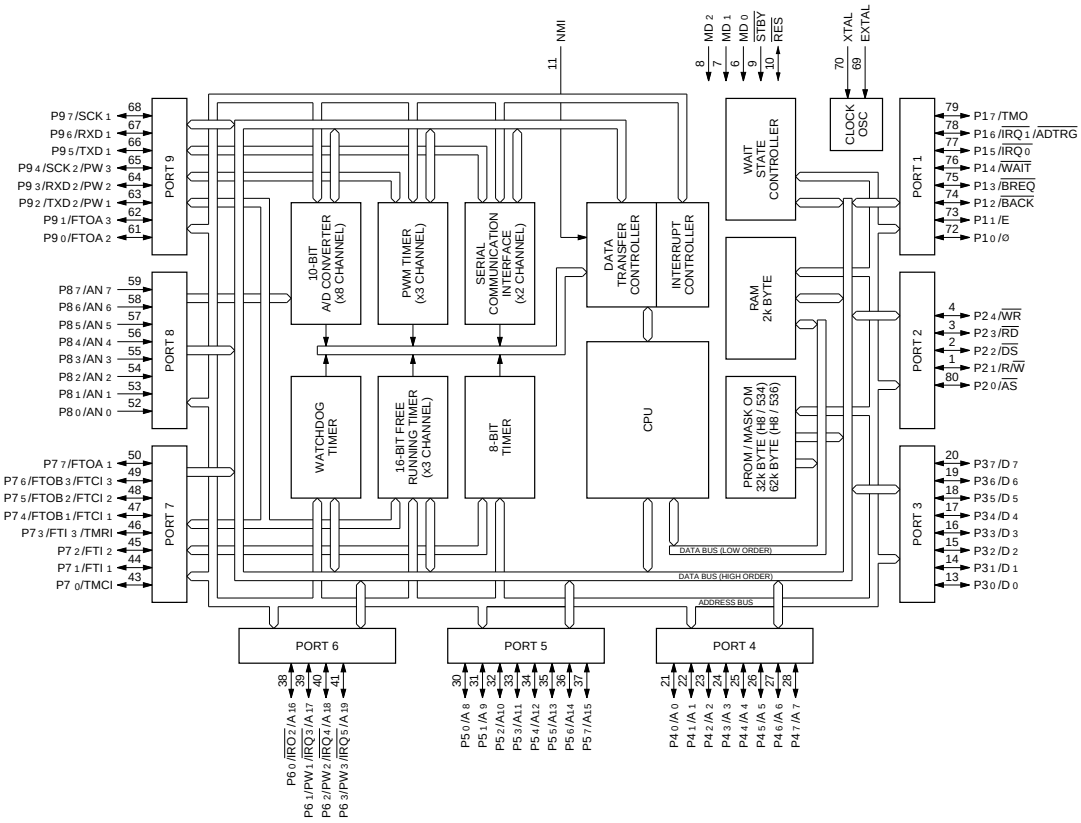
OUTPUT

A0 - A19	; ADDRESS BUS
$\overline{AS}$	; ADDRESS STROBE
$\overline{BACK}$	; BUS REQUEST ACKNOWLEDGE
$\overline{DS}$	; DATA STROBE
E	; ENABLE CLOCK
FTOA1 - FTOA3	; FRT OUTPUT COMPARE A (CHANNEL 1 TO 3)
FTOB1 - FTOB3	; FRT OUTPUT COMPARE B (CHANNEL 1 TO 3)
PW1 - PW3	; PWM TIMER (CHANNEL 1 TO 3)
R/$\overline{W}$	; READ/WRITE
$\overline{RD}$	; READ
TMO	; 8-BIT TIMER
TXD1, 2	; SEND DATA
$\overline{WR}$	; WRITE
Ø	; SYSTEM CLOCK

INPUT/OUTPUT

D0 - D7	; DATA BUS
$\overline{RES}$	; RESET
P10 - P17	; PORT 1
P20 - P24	; PORT 2
P30 - P37	; PORT 3
P40 - P47	; PORT 4
P50 - P57	; PORT 5
P60 - P63	; PORT 6
P70 - P77	; PORT 7
P90 - P97	; PORT 9
SCK1, 2	; SERIAL CLOCK

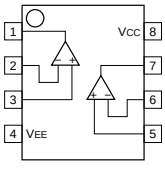
http://getMANUAL.com



NJM4580E(TE2) (JRC)

DUAL OPERATIONAL AMPLIFIERS
(DUAL-SUPPLY TYPE)

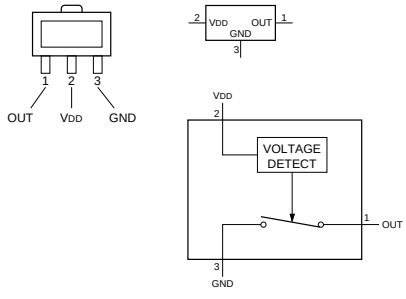
—TOP VIEW—



S-80840ANUP-ED4-T2 (SEIKO I&E)3.92-4.08 V

C-MOS VOLTAGE DETECTOR WITH N-CHANNEL OPEN DRAIN OUTPUT

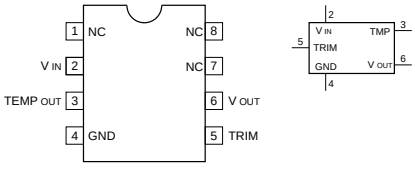
—TOP VIEW—



REF-03GSR (PMI)

REFERENCE/TEMPERATURE TRANSDUCER

—TOP VIEW—

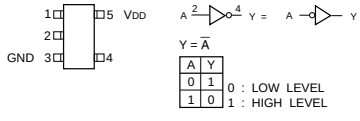


V IN ; INPUT VOLTAGE
TEMP OUT ; TEMPERATURE TRANSDUCER VOLTAGE OUTPUT
TRIM IN ; OUTPUT SIGNAL RIMMING
V OUT ; OUTPUT VOLTAGE

SC7S04F (MOTOROLA)
TC7S04F(TE85R)

C-MOS INVERTER

—TOP VIEW—

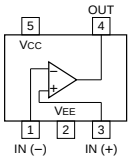


A	Y
0	1
1	0

0 : LOW LEVEL
1 : HIGH LEVEL

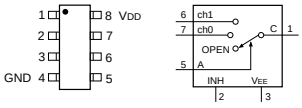
TA75S393F (TOSHIBA)
TA75S393F-TE85R

SINGLE COMPARATOR
—TOP VIEW—



TC4W53F (TOSHIBA)
TC4W53F(TE12R)

C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER
—TOP VIEW—

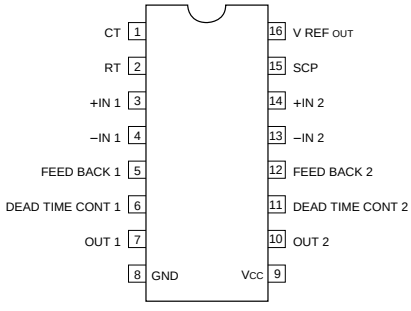


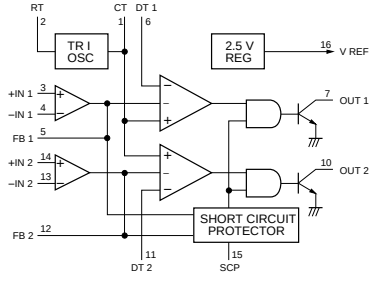
CONT. INPUT		ON
INH	A	CHANNEL
0	0	ch0
0	1	ch1
1	×	OPEN

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

TL1451ACPW-E05 (TI)

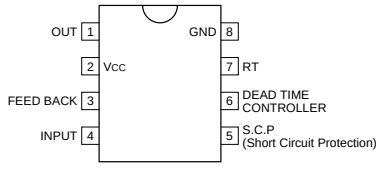
DUAL PWM POWER CONTROLLER
—TOP VIEW—

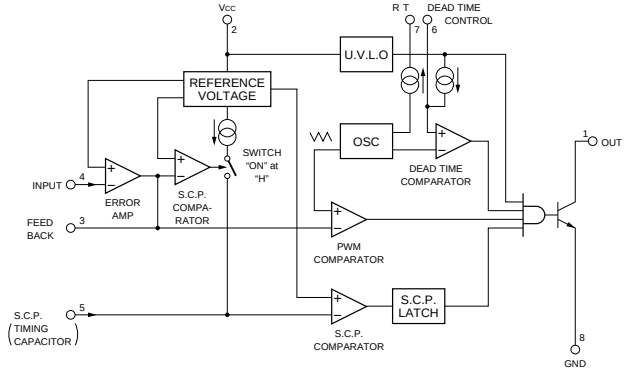




TL5001CPS (TI)
TL5001CPS-E05

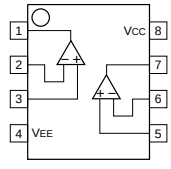
SWITCHING REGULATOR CONTROLLER
—TOP VIEW—





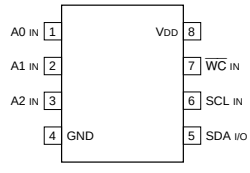
UPC4572G2-E2 (NEC)

DUAL OPERATIONAL AMPLIFIERS
(SINGLE-SUPPLY TYPE)
—TOP VIEW—



X24C02S-3.0-C7000 (XICOR)(2 K-BIT)
X24C02S-T1

C-MOS SERIAL EEPROM
—TOP VIEW—



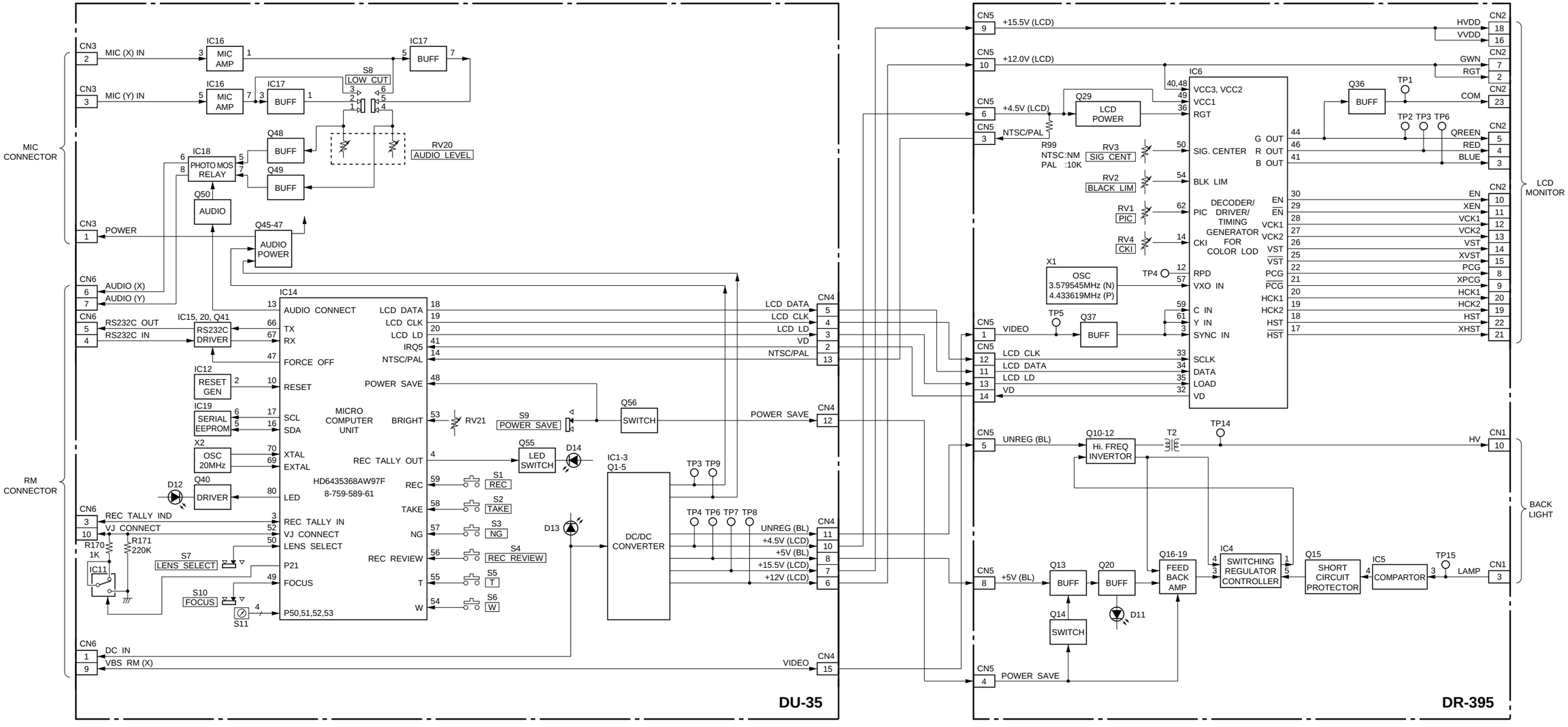
INPUT
A0 - A2 : ADDRESS
SCL : SERIAL CLOCK
$\overline{WC}$: WRITE CONTROL

INPUT/OUTPUT
SDA : SERIAL DATA

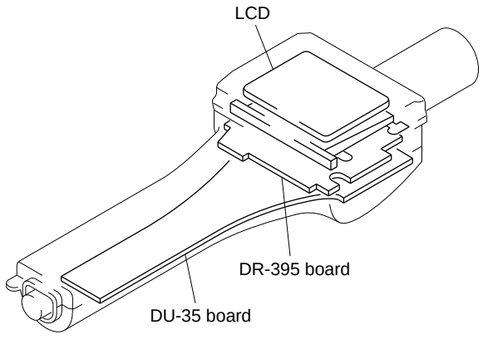
NOTE :

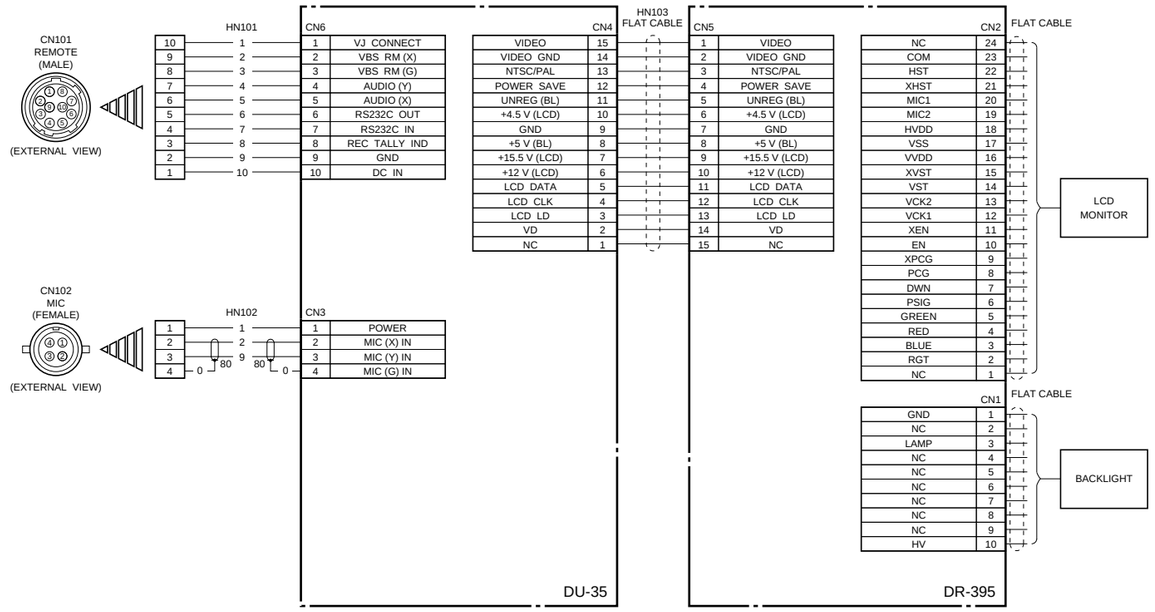
TYPE	PIN 7
NM24C16	NC
X24C02	$\overline{WC}$
X24C04	TEST

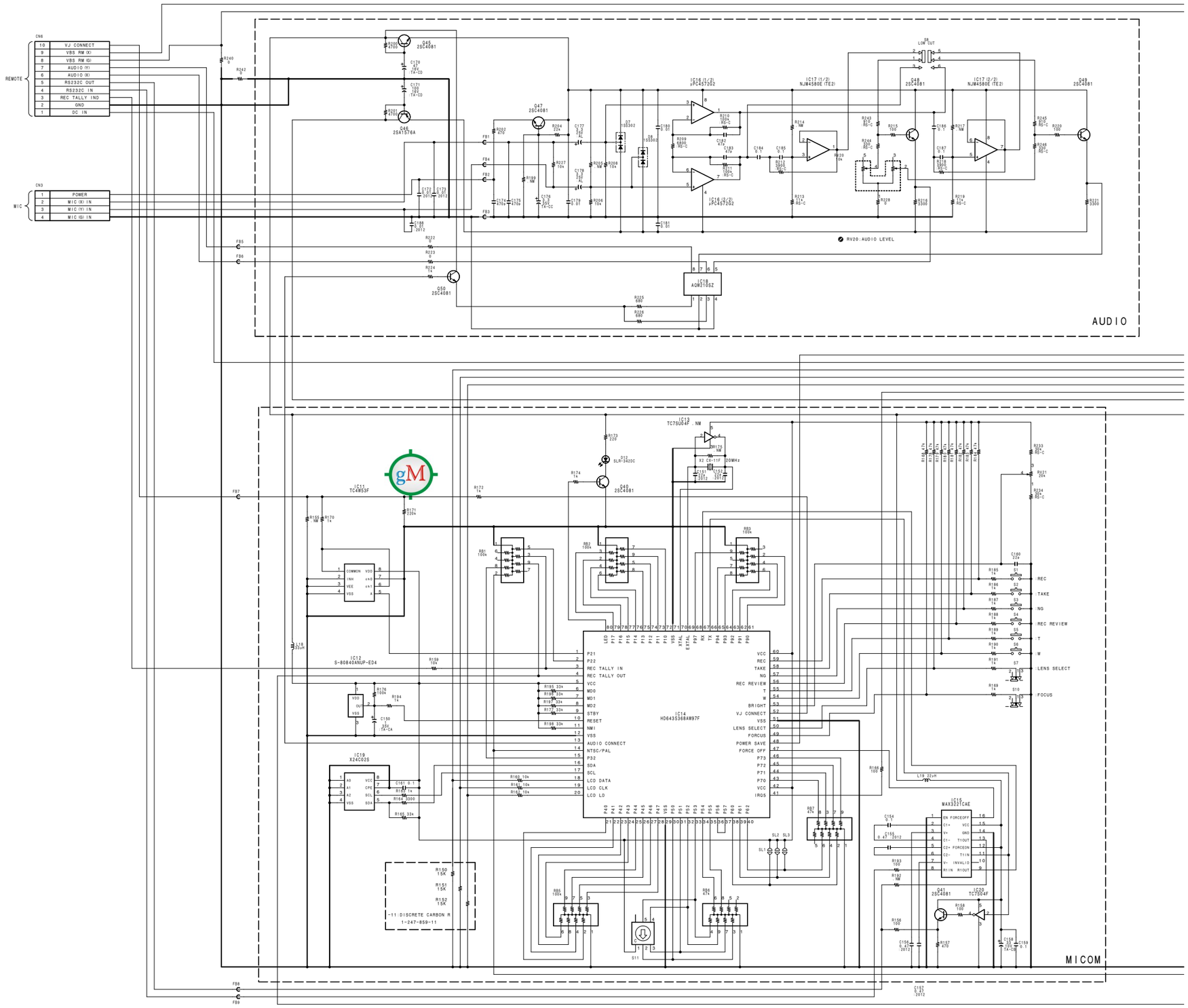
SECTION 6
BLOCK DIAGRAM

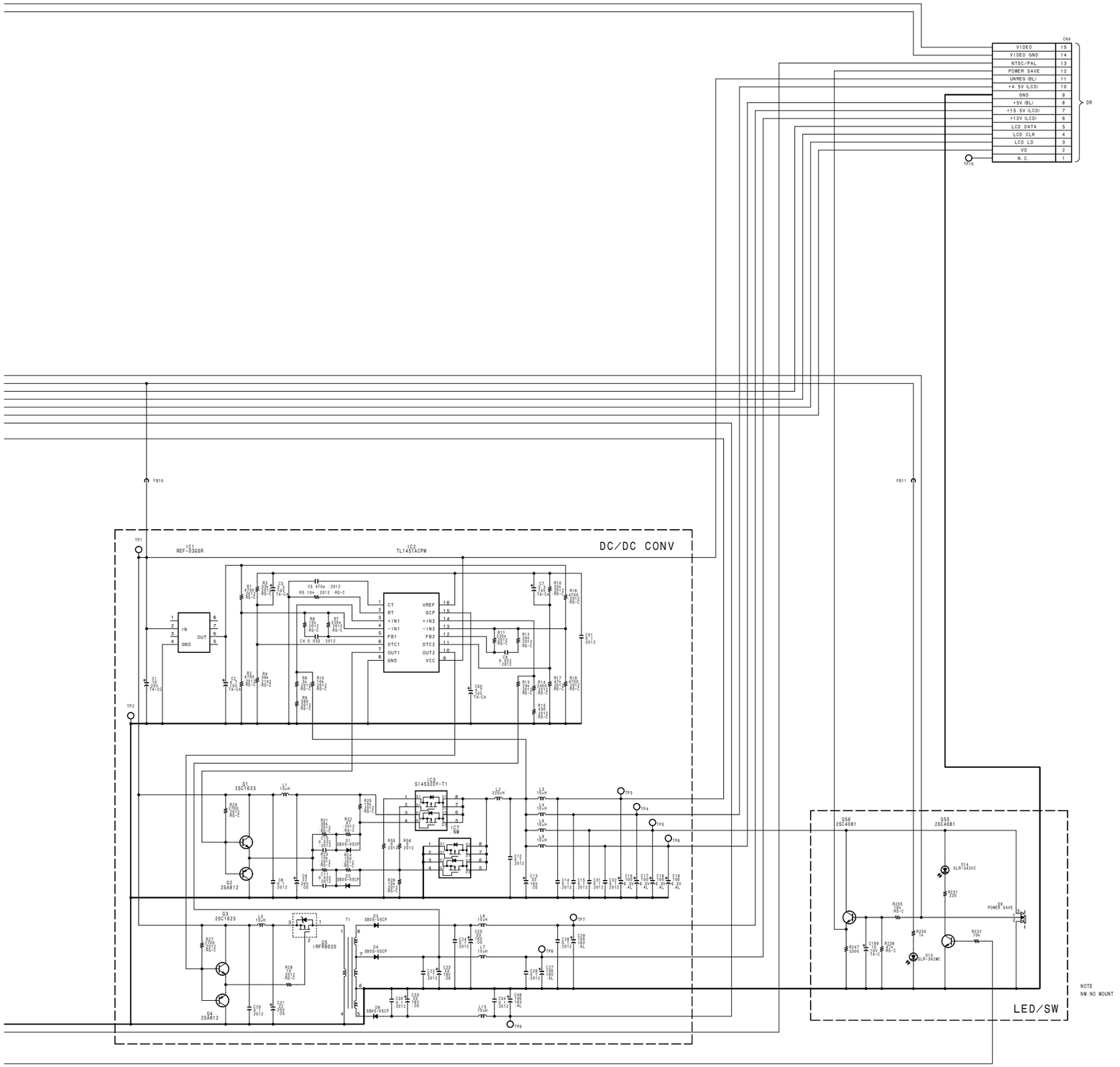


SECTION 7
SCHEMATIC DIAGRAMS



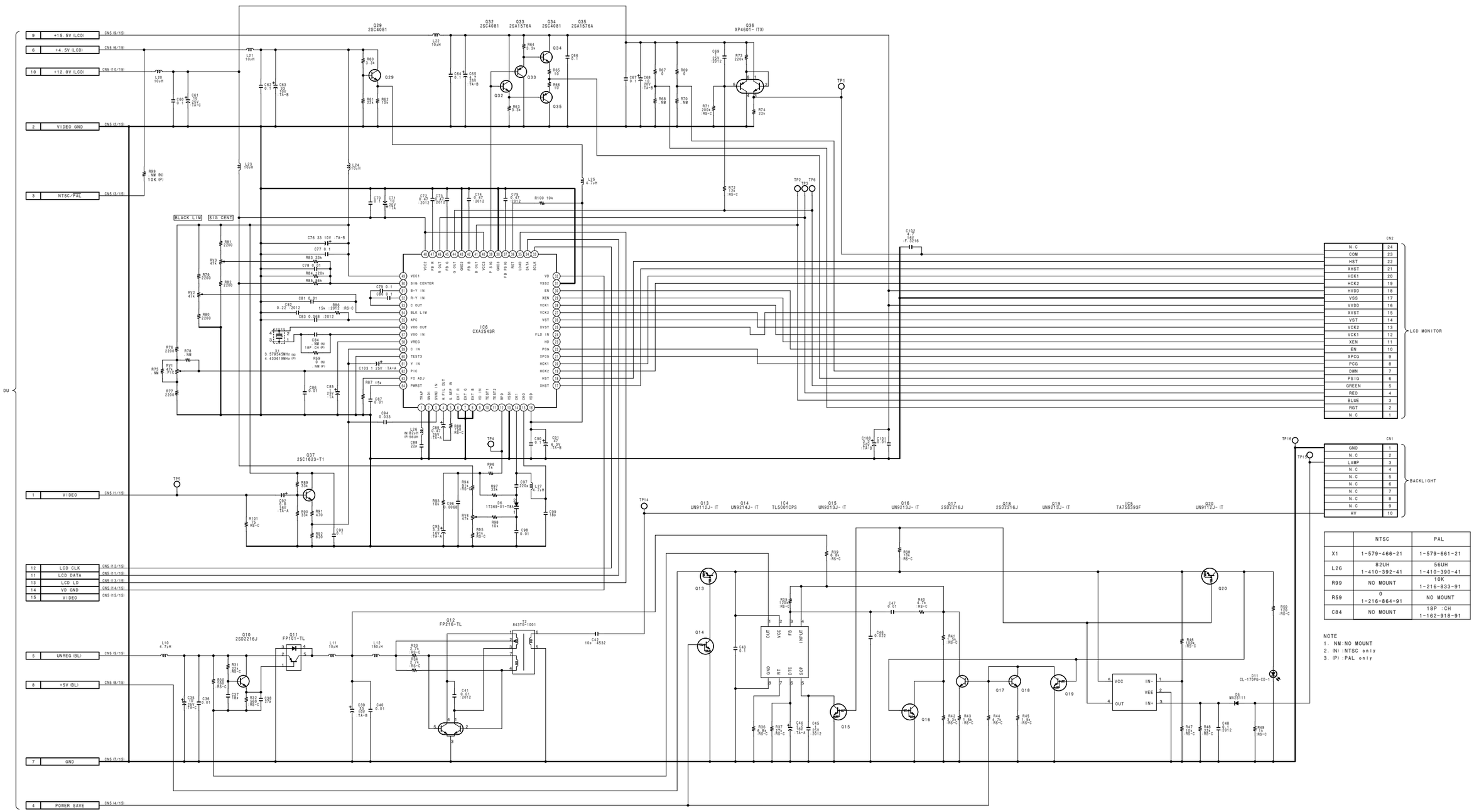



AUDIO
MICOM
REMOTE
MIC
RV20:AUDIO LEVEL
REC
TAKE
NG
REC REVIEW
T
W
LENS SELECT
FOCUS



DU-35

B-RMVJ1-DU35-11

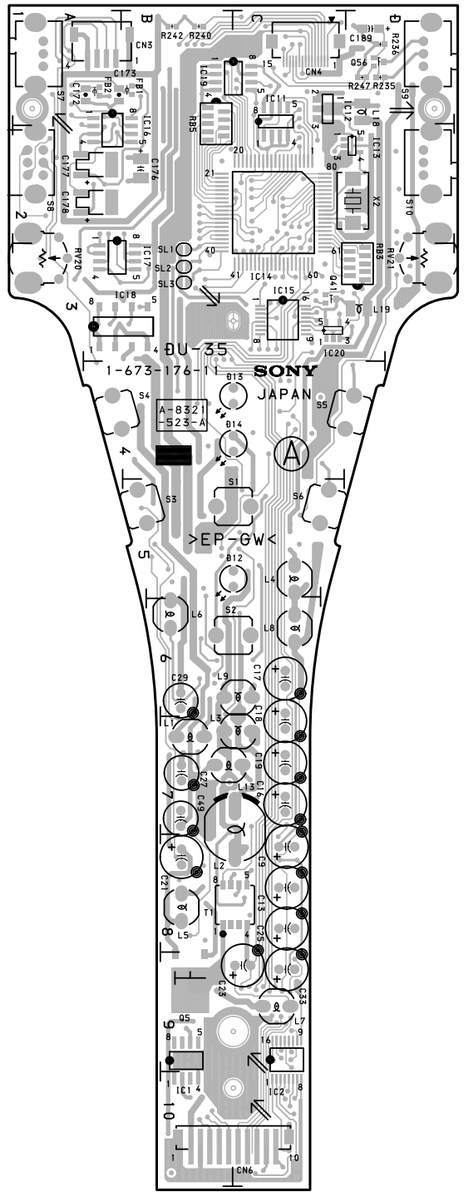


	NTSC	PAL
X1	1-579-466-21	1-579-661-21
L26	82UH 1-410-392-41	56UH 1-410-390-41
R99	NO MOUNT	10K 1-216-833-91
R59	0 1-216-864-91	NO MOUNT
C84	NO MOUNT	18P CH 1-162-918-91

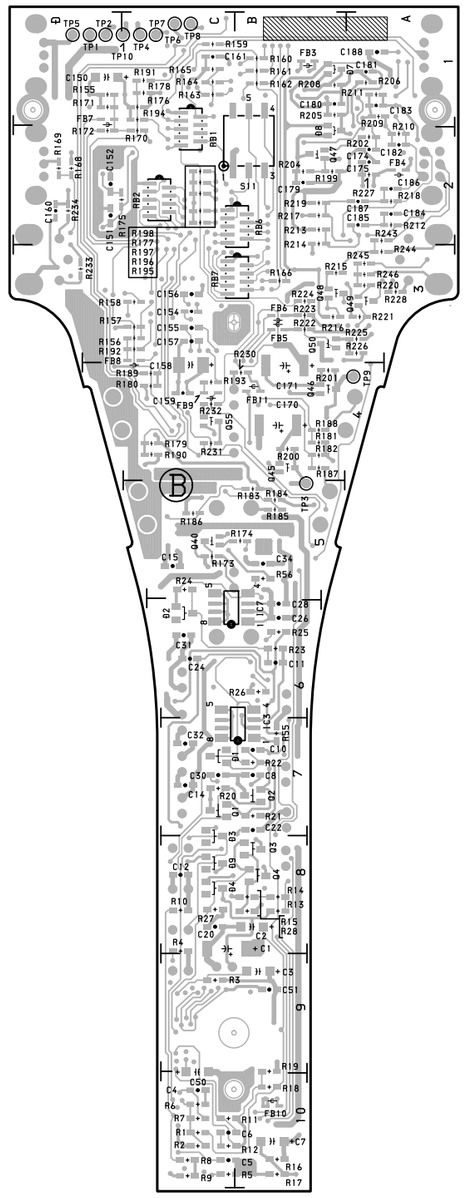
NOTE
1. NM:NO MOUNT
2. (N) :NTSC only
3. (P) :PAL only

DR-395
B-RMVJ1-DR395-11

SECTION 8
BOARD LAYOUTS



DU-35 -A SIDE-
SUFFIX: -11

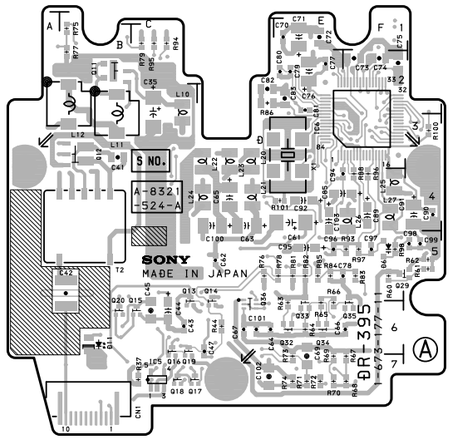


DU-35 -B SIDE-
SUFFIX: -11

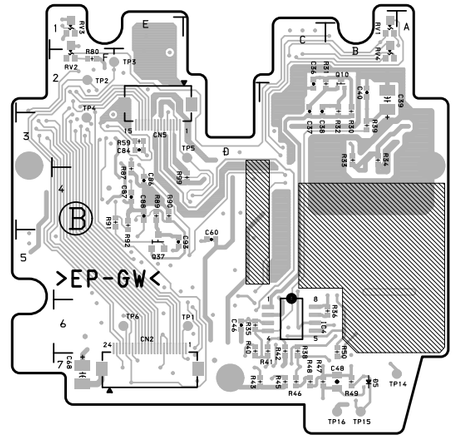
DU-35 (1-673-176-11)

*:B SIDE

CN3	A1	FB8	*C3	R160	*B1
CN4	C1	FB9	*C4	R161	*B1
CN6	C10	FB10	*B10	R162	*B1
		FB11	*B4	R163	*C1
C1	*C8			R164	*C1
C2	*B8	IC1	B9	R165	*C1
C3	*B9	IC2	C9	R166	*B3
C4	*C10	IC3	*B7	R168	*D2
C5	*C10	IC11	C1	R169	*D2
C6	*C10	IC12	C1	R170	*C2
C7	*B10	IC14	C2	R171	*D1
C8	*B7	IC15	C3	R172	*D2
C9	C8	IC16	A2	R173	*C5
C10	*B7	IC17	A3	R174	*B5
C11	*B6	IC18	B3	R176	*C1
C12	*C8	IC19	C1	R177	*C2
C13	C8	IC20	C3	R178	*C1
C14	*C7			R179	*C4
C15	*C5	L1	B7	R180	*C4
C16	C7	L2	C7	R181	*B4
C17	C6	L3	C7	R182	*B4
C18	C6	L4	C5	R183	*B5
C19	C7	L5	B8	R184	*B5
C20	*C8	L6	B6	R185	*B5
C21	B8	L7	C9	R186	*C5
C22	*B7	L8	C6	R187	*B4
C23	C9	L9	C6	R188	*B4
C24	*C6	L13	B7	R189	*C4
C25	C8	L18	D1	R190	*C4
C26	*B6	L19	D3	R191	*C1
C27	B7			R193	*C4
C28	*B6	Q1	*C7	R194	*C1
C29	B6	Q2	*B7	R195	*C2
C30	*C7	Q3	*B8	R196	*C2
C31	*C6	Q4	*B8	R197	*C2
C32	*C7	Q5	B9	R198	*C2
C33	C9	Q40	*C5	R199	*B2
C34	*B5	Q41	C3	R200	*B4
C49	B7	Q45	*B4	R201	*B4
C50	*C9	Q46	*B4	R202	*A2
C51	*B9	Q47	*B2	R204	*B2
C150	*D1	Q48	*B3	R206	*A1
C151	*D2	Q49	*A3	R208	*B1
C152	*D2	Q50	*B3	R209	*A1
C154	*C3	Q55	*C4	R210	*A2
C155	*C3	Q56	D1	R211	*A1
C156	*C3			R212	*A2
C157	*C3	RB1	*C2	R213	*B2
C158	*C4	RB2	*C2	R215	*B3
C159	*C4	RB3	D3	R216	*B3
C160	*D2	RB5	B1	R218	*A2
C161	*C1	RB6	*B2	R219	*B2
C170	*B4	RB7	*B3	R220	*A3
C171	*B4			R221	*A3
C172	A1	RV20	A3	R222	*B3
C173	A1	RV21	D3	R223	*B3
C174	*A2			R224	*B3
C175	*A2	R1	*C10	R225	*A3
C176	B2	R2	*C10	R226	*A3
C177	A2	R3	*C9	R227	*A2
C178	A2	R4	*C8	R228	*A3
C179	*B2	R5	*C10	R230	*B4
C180	*B1	R6	*C10	R231	*C4
C181	*A1	R7	*C10	R232	*C4
C182	*A2	R8	*C10	R233	*D3
C183	*A1	R9	*C10	R234	*D2
C184	*A2	R10	*C8	R235	D1
C185	*A2	R11	*C10	R236	D1
C186	*A2	R12	*C10	R240	B1
C187	*A2	R13	*B8	R242	B1
C188	*A1	R14	*B8	R243	*A2
C189	D1	R15	*B8	R244	*A3
		R16	*B10	R245	*A3
D1	*C7	R17	*B10	R246	*A3
D2	*C6	R18	*B10	R247	D1
D3	*C8	R19	*B9		
D4	*C8	R20	*C7	S1	C5
D7	*B1	R21	*B7	S2	C6
D8	*B2	R22	*B7	S3	B5
D9	*C8	R23	*B6	S4	A4
D12	C5	R24	*C5	S5	D4
D13	C4	R25	*B6	S6	C5
D14	C4	R26	*B6	S7	A1
		R27	*C8	S8	A2
FB1	B1	R28	*B8	S9	D1
FB2	A1	R55	*B7	S10	D2
FB3	*B1	R56	*B5	S11	*B2
FB4	*A2	R156	*C3		
FB5	*B3	R157	*C3	T1	C8
FB6	*B3	R158	*C3		
FB7	*D1	R159	*C1	X2	D2



DR-395 -A SIDE-
SUFFIX: -11



DR-395 -B SIDE-
SUFFIX: -11

DR-395 (1-673-177-11)

*:B SIDE

CN1	B7	Q19	C6
CN2	*E7	Q20	B6
CN5	*E2	Q29	F5
		Q32	E6
		Q33	E6
C35	C2	Q34	E6
C36	*C2	Q35	F6
C37	*C2	Q36	D6
C38	*C2	Q37	*E5
C39	*B2		
C40	*B2	RV1	*B1
C41	B3	RV2	*F2
C42	B5	RV3	*F1
C43	C6	RV4	*B2
C44	C6		
C45	C6	R30	*B2
C46	*D6	R31	*B2
C47	D6	R32	*B2
C48	*B7	R33	*B3
C60	*D5	R34	*B3
C61	E4	R35	*D6
C62	D5	R36	*B6
C63	D4	R37	C7
C64	D6	R38	*C6
C65	D4	R39	*B3
C66	F6	R40	*D6
C67	D6	R41	*C6
C68	*F7	R42	*C6
C69	E7	R43	*C7
C70	E1	R44	D6
C71	E1	R45	*C7
C72	E1	R46	*C7
C73	F2	R47	*C7
C74	F2	R48	*C7
C75	F2	R49	*B7
C76	E2	R50	*B6
C77	E2	R59	*E3
C78	E5	R60	F5
C79	E2	R61	F5
C80	E2	R62	F5
C81	E2	R63	E6
C82	D2	R64	E6
C83	E2	R65	E6
C85	E4	R66	E6
C86	*E4	R67	F7
C87	*E4	R69	E7
C88	*E4	R71	E7
C89	F4	R72	E7
C90	F4	R73	E7
C91	F4	R74	E7
C92	E4	R76	D5
C93	*E5	R77	B2
C94	E4	R79	C1
C95	E5	R80	*F2
C96	E5	R81	E5
C97	F5	R82	E5
C98	F5	R83	F5
C99	F5	R84	E5
C100	D4	R85	E5
C101	D6	R86	D2
C102	D7	R87	*E4
C103	E4	R88	F4
		R89	*E4
D5	*B7	R90	*E4
D6	F5	R91	*E4
D11	B6	R92	*E4
		R93	F5
IC4	*C6	R94	C1
IC5	C7	R95	C1
IC6	F3	R96	F4
		R97	F5
L10	C2	R98	F5
L11	B2	R100	F3
L12	B2	R101	E4
L20	D3		
L21	D4	T2	B4
L22	D3		
L23	D3	X1	E3
L24	D4		
L25	F4		
L26	F4		
L27	F4		
Q10	*B2		
Q11	B2		
Q12	B3		
Q13	C6		
Q14	D6		
Q15	C6		
Q16	C6		
Q17	C7		
Q18	C7		

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RM-VJ1 (J, UC)
RM-VJ1P (CE) J, E
9-977-371-01

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Broadcasting & Professional Systems Company

Printed in Japan
1999. 1 22
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